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THE NATURE OF TEACHERS' QUESTIONING AND THEORETICAL ORIENTATIONS TO READING IN GRADE FIVE CLASSROOMS

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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Date 17th July, 1985

ABSTRACT

This study investigated the relationship between the questioning characteristics of teachers selected as exponents of either Skills/Eclectic or Whole Language theoretical orientations to reading as evidenced within their regular reading comprehension instruction. A subject selection instrument which, together with principals' and consultants' recommendations, was used to select five grade 5 teachers, and one grade 4/5 teacher from a large urban centre in western Canada. Three exponents were chosen for each of the Skills/Eclectic and Whole Language theoretical orientations to reading. Three audio-tapings were made of each subject's regularly scheduled reading comprehension instruction. Teachers were asked to select the two tapes most typical of their instruction. Tapes were transcribed verbatim for coding of teachers' questions and analysis of data sources for question-answer relationships (QAR). Data concerning teacher behaviors incidental to the major focus of the study were obtained from field notes and a Teacher's Professional Data form. Descriptive data were reported in the form of hand calculated proportional percentages or the researcher's personal observations and impressions.

Results for teachers' questions indicated a heavy emphasis on comprehension assessment, with limited comprehension instruction evident, regardless of group's theoretical orientation. Comprehension instruction questions for both groups emphasized the functions of focusing and schema development, but did little to facilitate vocabulary development. Students' background knowledge was the major source of data required for QAR responses. Whole Language instruction appeared

different from Skills/Eclectic approaches by placing more emphasis on: a) clarifying students' schema misconceptions and inconsistencies in reasoning; b) relating students' background knowledge and comprehension difficulties directly to text; c) providing creative writing opportunities as an integral part of reading comprehension instruction; d) choosing less didactic, anthology type texts from prescribed reading materials. Skills/Eclectic subjects tended to supply the text word immediately for students' miscues and to follow the sequence of instructional activities presented in the teacher's Guidebook. They did not appear as self-confident or as involved professionally in improving their instructional practices as Whole Language subjects.

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Chapter 1

OVERVIEW OF THE STUDY

INTRODUCTION AND STATEMENT OF THE PROBLEM

> A teacher can serve no greater end than to help a student comprehend, interpret, evaluate, and appreciate the written word. (Pearson & Johnson, 1978, p. 2)

Comprehension is the fundamental purpose of the reading act. Reading comprehension instruction can only be said to be successful to the degree that it facilitates a reader's acquisition of meaning.

Prior to 1970, the ultimate criterion for defining comprehension success was the text. If there was any acknowledgement that readers built mental models in their heads as they read, it was largely in terms of assessing how closely they approximated the fixed standard of the text (Pearson, 1985, p. 726). During the 1980's the earlier passive-receptive role of a reader has given way to a more active-constructive role in the comprehension process. Text is no longer viewed as a "dictatorial entity", but more of a blueprint for meaning, a collection of clues that the reader constructs Sherlock Holmes style into a personal model of the text's meaning. No author can be completely explicit in what s/he writes. Instead, authors have to omit those nuances, those relationships among events and characters they believe the majority of readers can hopefully figure out for themselves.

Two implications for classroom reading comprehension instruction are inherent in this new vantage point. First, the teacher must know as

much about students' prior knowledge, strategies and task, as s/he knows about the text itself. Second, the role of teacher as manager, implicit in much of present teaching practices, should be replaced by one of teacher as teacher (Duffy, Roehler & Mason, 1984; Pearson, 1985). This further implies a greater involvement in direct teaching (modeling, guided practice, substantive feedback) if the expanded, interactive view of the comprehension process is to be implemented.

Durkin's (1978; 1981a) survey research of current teaching practices, however, revealed a picture of virtually no direct comprehension instruction. Instead the managerial role of teachers seemed evident as they emphasized assignment of work sheets, and questions whose primary function was to assess rather than facilitate students' comprehension.

Questioning by teachers has long been assumed to be the major, most accessible tool for developing students' reading comprehension. However, a consistent research finding is that a preponderance of these questions requires only a literal recall of text based information (Guszak, 1967; Gall, 1972; Hare & Pulliam, 1980).

Since teacher generated questions are the most accessible and extensively used method for affecting students' reading comprehension they will be a major focus of this study.

A current notion in reading education is that teachers' classroom instruction and behavioral interactions with students reflect their theoretical orientation towards reading (Harste & Burke, 1977; Duffy & Metheny, 1979; Kamil & Pearson, 1979). Research findings to date have been mixed. However, while "typical" teachers' beliefs may have minor or unclear relationships to instruction (Buike, Burke &

Duffy, 1980) teachers, whose orientations may be termed "extreme", appear to organise and present reading programs in ways consistent with their beliefs (Watson, 1984).

Since questions constitute such a major part of reading comprehension instruction, the question arises as to whether the nature of questions asked relates to a teacher's theoretical stance towards reading. Implicit in this question is the intention to see if polarized, sometimes divisive theoretical stances of teachers for "empty classrooms", are mollified by the realities of "full classroom" instruction, e.g. accountability, maintaining smooth activity flow. Duffy (1982) somewhat indelicately expresses this dilemma of knowledgeable, reflective teachers when he writes:

> When you are up to your ass in alligators, its difficult to remember that your original objective was to drain the swamp. (p. 358)

PURPOSE OF THE STUDY

The purpose of the study was to investigate the relationship between the questioning characteristics of teachers selected as exponents of either Skills or Whole Language orientations to reading as evidenced within their regular reading comprehension instruction.

DEFINITION OF TERMS

Terms used generally throughout the study are defined overleaf. Additional "decision facilitators" used in coding the descriptive data, are provided in Chapter 3.

Comprehension Assessment (CA):

"A teacher does/says something in order to learn whether what was read was comprehended..." (Durkin, 1978, p. 11)

Comprehension Instruction (CI):

A teacher does/says something to help students understand or work out the meaning of more than a single, isolated word. Instruction must also be perceived by the researcher to have transfer value in that it helps students understand connected text not used in that instruction (adapted from Durkin, 1978, p. 8)

Functions of Comprehension Instruction Questions:

Clarifying (Clar) - a teacher's question which seeks further information from students to clarify what is perceived as a vague or ambiguous response.

Focusing - Directing (Fd) - a teacher's question that directs students to a particular part of text in order to elicit an inferential rather than factual response.

Focusing - Narrowing (Fn) - a teacher's question that is perceived as requesting a smaller part of a larger issue demanded by a previous question, in order to aid a student's response.

Schema Development (Sd) - a teacher's question (or sequence of questions) that is perceived to: (a) invoke student predictions or elaborations from prior experiences in relation to the text, OR (b) assist students in developing schemata for story or expository text organization.

Vocabulary Development (Vd) - a teacher's question (or sequence of questions) that is perceived as "building bridges" between a new word/concept and what is already known by the student(s) i.e. it

must be perceived as facilitating "ownership" of a word/concept for independent use beyond the immediate instructional situation.

Data Source for Students' Question-Response Patterns:

Textually Explicit 1 (TE1) - a question requiring students to give a specific response explicitly stated in a single sentence of the text, i.e. it requires, "...reading the line." (Pearson & Johnson, 1978)

Textually Explicit 2 (TE2) - a question requiring students to combine information stated explicitly in more than one sentence of the text, i.e. it requires, "...drawing together the lines." (Fagan, unpublished manuscript, 1985)

Textually Implicit (TI) - a question requiring students to make at least one step of logical or pragmatic inferring to get to the response, AND both question and response are derived from the text, i.e. it requires, "...reading between the lines." (Pearson & Johnson, 1978)

Scriptally Implicit (SI) - a text derived question requiring students to respond only from their prior knowledge. The data source is in the respondent's head, not within the text, i.e. it requires, "...reading beyond the lines." (Pearson & Johnson, 1978)

Skills Teacher:

A teacher who views reading, implicitly or explicitly, as comprising a hierarchy of word identification and comprehension subskills, which have to be taught routinely, in turn, as a necessary, yet sufficient condition for learning to read.

Theoretical Orientation:

The underlying beliefs upon which a teacher may base, organize

and conduct classroom reading instruction.

Whole Language Teacher:

"...one who views language as a complete organization of systems, sees strength and sense in the totality, rather than in the parts of language, and bases instruction on that assumption." (Watson, 1984)

RESEARCH QUESTIONS

Research questions to be addressed by the study include the following. Essential aspects of each question are underlined for the benefit of the reader.

Teachers' Questioning:

1. Do grade five Skills and Whole Language teachers differ in the proportion of Comprehension Instruction questions to total number of questions asked during regular reading comprehension instruction?

2. Do grade five Skills and Whole Language teachers differ in the proportion of Comprehension Assessment questions to total number of questions asked during regular reading comprehension instruction?

3. Do grade five Skills and Whole Language teachers differ in the proportion of Comprehension Instruction questions to Comprehension Assessment questions asked during regular reading comprehension instruction?

4. What is the nature of Comprehension Instruction questions asked by grade five Skills and Whole Language teachers during regular reading comprehension instruction?

5. a) Do grade five Skills and Whole Language teachers differ in the proportion of text-explicit (factual) Comprehension Instruction questions asked during regular reading comprehension instruction?

b) Do grade five Skills and Whole Language teachers differ in the proportion of text-implicit (inferential) Comprehension Instruction questions asked during regular reading comprehension instruction?

c) Do grade five Skills and Whole Language teachers differ in the proportion of scriptal (students answer from their back-ground knowledge) Comprehension Instruction questions asked during regular reading comprehension instruction?

Other Teaching Behaviors:

6. Are there differences in the types of reading skills emphasized in comprehension instruction by grade five Skills and Whole Language teachers?

7. Are there differences in the choice of instructional materials and audio-visual/electronic aids between grade five Skills and Whole Language teachers?

8. Are there differences in the general educational training background of grade five Skills and Whole Language teachers?

9. Are there differences in the major sources of ideas about reading between grade five Skills and Whole Language teachers?

10. Are there differences in teacher characteristics between grade five Skills and Whole Language teachers?

LIMITATIONS

Since the study is exploratory and descriptive, "absolute values" cannot be equated with its findings.

The presence of the researcher and the process of audio recording are intrusive factors upon the normal learning environment of

a classroom. Although other research (e.g. Barr and Dreeben, 1983) has found great stability among teachers with repeated observations, it is always possible that atypical lessons were taped. These factors, combined with the small sample of subjects and the data analysis of only two audio tapes per teacher, restrict the generalizability of findings.

Students taking part in the study are included solely on the basis of being regular members of the subjects' grade five classes. Since there is some evidence to suggest that the ability/achievement levels of students can affect the types of questions teachers ask, this dimension should be considered in the interpretation of findings.

ASSUMPTIONS

It is assumed that the subject selection, agreement scale questionnaire reflects the direction and relative strength of teachers' underlying theoretical orientations toward reading.

It also assumes that responses to this questionnaire, by subjects in the study, are given honestly and accurately, truly reflecting their underlying theoretical orientations toward reading.

The final assumption is that principals' recommendations concerning subjects for the study, are accurate and informed, particularly in the case of Whole Language teaching at an upper elementary level.

SIGNIFICANCE OF THE STUDY

This study will provide insights into whether two apparently antithetical theoretical orientations towards reading, expressed by

teachers for "empty classrooms", translate into similar or dissimilar "full class" comprehension instruction practices, at a grade five level.

If comprehension instruction practices are found to be similar, this may indicate that future research focus on identifying those school and societal factors that teachers perceive as pressuring them to abdicate instructional decision-making in reading in accordance with their underlying beliefs.

If it is also found that the amount of direct comprehension instruction continues to reflect Durkin's pessimistic findings (1978; 1981a), this may indicate the need for a change in emphasis and length of teacher training programs.

Where instructional practices are found to be dissimilar this study may provide educators with specific information on important dimensions influencing comprehension instruction. This data may assist them in making enlightened decisions when considering the theoretical bases on which to build or revise students' reading curriculum and teacher training programs.

Dissimilar instructional practices may also provide evidence that teachers' underlying theoretical orientations toward reading can be determined by a pencil and paper format; more specifically the THOR questionnaire, and the TORP and PRI test instruments from which the former has been adapted.

ORGANIZATION OF THE THESIS

Chapter 2 presents a review of relevant literature as background to this study.

Chapter 3 describes the design of the study including the development of the subject selection instrument, piloting audio taping procedures, selecting the sample and data collection and analysis.

Chapter 4 presents and discusses the descriptive data for research questions 1 - 10.

Chapter 5 presents a brief review of the study and its conclusions related to each of the research questions. It presents the researcher's reflections on this study of teaching, and concludes with implications for classroom instruction, and recommendations for further research.

Chapter 2

REVIEW OF THE LITERATURE

This review examines five areas of research. First, it outlines schema-theoretic approaches to reading as a basis for viewing comprehension instruction. Second, it describes the current status of reading comprehension instruction in elementary schools. Third, the nature of teachers' questioning within reading comprehension instruction is presented. Fourth, it considers the notion that teachers' classroom instruction reflects their theoretical orientation towards reading. Fifth, the recent findings of "looking into classrooms" research are presented and their influence upon instruction discussed.

A final section attempts to summarize major findings from this review and indicates implications for the present study.

SCHEMA-THEORETIC VIEW OF READING

Prior to the early 1970's little effort was made to teach the process of reading comprehension. The assumption seems to have been that once readers could decode accurately and fluently, comprehension would automatically follow. Curiously, educators were also acknowledging the importance of examining how the reading process takes place (Mason, 1984). However, these aspects were neglected in favor of teaching those skills or abilities that could readily be assessed. Succinctly stated, the emphasis was on comprehension as product rather than the more elusive comprehension as process.

More recently, a new perspective has emerged centering on the process perceived in the thoughtful acts of successful readers. One major tenet of this schema-theoretic view is that comprehension of text is as dependent on what is in a reader's head as it is on what is printed. Text in itself does not carry meaning. Rather it provides a blueprint for readers to follow as they attempt to reconstruct the author's intended meaning using their own, previously acquired knowledge (Adams and Collins, 1979). From this follows the important realization that "...reading comprehension depends eminently on what the reader already knows" (Bereiter, 1978, p. 6).

Schema-theory, thus far described, appears to offer little more than the long standing exhortation in reading methodology courses for teachers to provide students with varied background experiences as a means of building concepts and vocabulary in preparation for reading a selection. The major concerns of schema theory, however, are to articulate how knowledge is stored in the mind, and how it enters into, and influences, the reading process.

The basic assumption underlying schema theory is that an individual's vast amount of previously acquired conceptual knowledge about the world, is organized and stored in memory in the form of abstract structural networks variously described as schemata (Rumelhart & Ortony, 1977), frames (Minsky, 1975), scripts (Schank, 1973) or semantic maps (Pearson & Johnson, 1978). However, these schemata are not believed to be stored as "...separate immutable traces that represent exact copies of the original experience" (Armbruster, 1976, p. 12), but in a manner which permits modification through further experiences. Development occurs when what is known (an object, an event, a process)

interacts with what is new but related.

A schema (singular for schemata) has been defined as "...an abstract cognitive representation of a generalized concept or situation" (Rumelhart & Ortony, 1977, p. 290). Its purpose is postulated as being a "cognitive template" against which incoming data can be matched, and in terms of which it can be comprehended.

Two characteristics of schemata assume prime importance in their functioning as knowledge structures for comprehending text.

First, schemata are believed to be arranged hierarchically. For example, a person's schema for "dinghy" is thought to be part of a more encompassing schema for "boat". This is part of a schema of "ships" or "vessels", which in turn is subordinate to the still larger schema for "water transportation". At the same time, a hierarchy of schemata may be embedded in other related schemata. In the examples given, "dinghy" and "boat" may be subsumed within "boatbuilding" or "pleasure boating", and "water transportation" within "world transportation rates".

The second important characteristic of schemata is that they are assumed to contain slots, variables or placeholders which are waiting to be filled according to the constraints of a particular situation or text. For example, in a "sail boat" schema there would be slots for physical features such as mast, keel, boom, rudder, etc. According to schema-theory, if a specialized text on sailing dinghies includes what a reader knows, as well as information that is new, this not only activates the pieces of information in a previously familiar schema (for example, "sailboat"), it also assists in filling in one or more of the empty slots associated specifically with dinghies (for example, centre-board, hiking strap, jam-cleat). This conception

of comprehension equates it with "...filling the slots in the appropriate schemata in such a way as to jointly satisfy the constraints of the message and the schemata" (Anderson, Reynolds, Schallert, & Goetz, 1977, p. 370). Durkin expresses essentially the same view when she says that "...comprehension is a process that both depends on, and develops, schemata" (Durkin, 1986, p. 26).

Schema theory thus far described is similar to Piaget's notion of "assimilation", and the classifications of "accretion" and "fine tuning" proposed by Rumelhart and Norman (1976, p. 26), as to how schemata are formed and changed. Accretion is merely inserting new information into a schema already possessed. Fine-tuning involves minor modifications in existing schemata whereby irrelevent aspects of a schema are dropped and new variables added.

Sometimes, however, there are discrepancies between students' schemata, based on their everyday experiences of the world, and reality perceived by an author presented in a text. A reader thereby confronts what Piaget terms "accommodation" and Rumelhart and Norman classify as "restructuring". These terms describe either a major alteration in existing schemata, when new information does not fit currently available schemata, or when the organization of existing data structures is unsatisfactory. Anderson (1977) points out that new information will likely be resisted if its acceptance requires major cognitive reorganization. He further indicates several forms for this resistance. It may take the form of counter-arguing within the framework of the reader's existing schemata, treating anomolies as exceptions that prove the rule, keeping separate incompatible schemata, or ignoring discrepancies altogether. Practising teachers are aware of students who

"play the game of school" by meeting surface expectations for tests, texts and behavior, but who hold fast to out-of-school schemata that belie their classroom performance. Anderson (1977) feels change is most likely accomplished when a student recognizes a problem with his/her existing schema, and become aware of an alternate schema that resolves the difficulty.

Thus schema theory implies that comprehension instruction should focus on what is already within the reader's head, together with facilitating the "...building [of] bridges between the new and the known" (Pearson & Johnson, 1978, p. 24). Without this focused intervention a reader may find it difficult to comprehend a text for which s/he has no schema, or to accommodate discrepancies between prior knowledge and text. This may result in the reader failing to learn, forgetting what has been read, or unknowingly misinterpreting what has been read so that new information is in conflict with earlier ideas.

Closely associated with schema theory are studies concerning inferencing, which have further specific implications for reading. For example, Anderson, Pichert, Goetz, Schallert, Stevens, & Trollip (1976), and Anderson & McGaw (1973), indicate that both the ability to make an inference, and the inference itself, are dependent on a reader's world knowledge. So also is the meaning of what is directly stated by an author (Anderson, Reynolds, Schallert & Goetz, 1977). This suggestion that even explicit text may be interpreted in a variety of ways is thought to reflect the fact that readers respond neither passively nor objectively to print. Instead they actively construct meaning themselves with the assistance of both the author's words and their personal schemata. Reading comprehension is thereby portrayed as an "interactive

process" in which both text and world knowledge play key roles (Rumelhart, 1977).

The "interactive" view is commonly contrasted with two other interpretations. One sees it as a "top-down process", while the other a "bottom-up process".

The top-down theorists assign primary importance to what is in a reader's head (Smith, 1971) and the "psycholinguistic guessing game" (Goodman, 1967) s/he engages in. Reading is referred to as concept-driven as the reader's knowledge of the world, together with language, suggest certain hypotheses that are confirmed, modified or rejected by the text.

In contrast, bottom-up adherents portray reading primarily as text-driven (Gough, 1972; LaBerge & Samuels, 1974). Words are thought to be processed individually and sequentially, with meaning derived directly from them. What is in a reader's head is not thought to be unimportant; it's more a case of greater importance being assigned to the author's words.

The interactive, theoretical model attempts to encompass both the above interpretations. Although schema theory's emphasis on prior knowledge and inferencing skills are key components of the model, it is equally important that these interact with such text information as decoding, vocabulary meaning, syntax, sentence cohesion and passage structure. The conception is interactive because it suggests that each informational component may be used as necessary, and that there is no set order or pattern in the use of informational sources. The over-riding concern is for meaningful output. However, the model emphasizes that in trying to attain meaning, skillful readers use the most efficient

way possible. That may mean that different readers use different information to varying degrees in order to comprehend. At the same time, a lack of, or an inability to abstract or interpret information, can cause comprehension difficulties.

To summarize this section on schema-theoretic views of the reading process, four central tenets outlined by Duffy, Roehler and Mason (1984) will be stated:

> 1. The mature reader derives information more or less simultaneously from many levels of analysis including the graphophonemic, morphemic, semantic, syntactic, pragmatic, schematic, and interpretive.
>
> 2. Reading is an interactive process: analysis does not proceed in a strict order from basic perceptual units through to the overall interpretations of the text, but hypotheses at any level may facilitate or inhibit hypotheses at any other level.
>
> 3. Reading is a constructive process. A text does not "have" a meaning by virtue of its wording and syntax; rather, the text is an abbreviated recipe from which the reader elaborates a meaning based on analysis of the author's intentions, the physical and social context, and the reader's knowledge of the topic and genre.
>
> 4. Reading is a strategic process. Skillful readers continuously monitor their comprehension; they are alert to breakdowns and selectively allocate attention to difficult sections as they progressively refine their interpretations of the text. (p. 5-6)

CURRENT STATUS OF COMPREHENSION INSTRUCTION

Durkin's (1978) survey research initiated attempts to ascertain the current status of classroom comprehension instruction.

For the purposes of her study, comprehension instruction was defined as: "The teacher does/says something to help children understand or work out the meaning of more than a single, isolated word" (p. 8). Durkin was concerned to differentiate between this and

comprehension assessment. The latter she defined as: "The teacher does/says something in order to learn whether what was read was comprehended" (p. 11). Since questioning is closely associated with comprehension, her view was that what a teacher did with questions was crucial. If a question was "...likely to advance children's comprehension abilities" (p. 11), it was classified as comprehension instruction. If a teacher asked a question and did nothing with the student's answer (except to indicate right or wrong), that was categorized as comprehension assessment.

Thirty classrooms were observed in seventeen schools in thirteen different school systems for approximately three hundred hours in the state of Illinois. Grades 3 to 6 were the focus for these observations on the grounds that more comprehension instruction would be found at these grade levels than in primary grades. Requests were made to observe the "best teachers", on the assumption that they would be more concerned with teaching comprehension than other colleagues. Social Studies lessons were also observed to see whether comprehension instruction was being carried out in difficult content areas as well as in reading.

Durkin summarized her major finding in this way:

> Practically no comprehension instruction was seen. Comprehension assessment, carried on for the most part through interrogation, was common. Whether children's answers were right or wrong was the big concern. (p. 47)

Instruction for comprehension accounted for less than 1 percent of the time. In addition to an emphasis on literal interrogation, the practice of "mentioning" was prevalent. Durkin coined the latter term to describe a teacher saying just enough about a topic to allow for an assignment related to it. Other teacher concerns appeared to be

assigning decoding type worksheets, listening to round-robin oral reading and activities classified as "non-instructional" and "transitional". No teacher saw the Social Studies period as a time to help with reading. Providing small classes and teacher aides was not a solution for classrooms studied. The class size average was 23 students. Some had only 11 students. Where aides were available, the result was more checking, not better teaching.

Durkin's (1981a) sequel to her classroom observation study applied the same definition of comprehension instruction to the teacher's manual activities of five, currently popular basal reading programs. Findings were just as pessimistic; while the incidence of comprehension instruction was slightly higher, the overall pattern of teacher reliance on assessment and "mentioning" of comprehension strategies was repeated.

A study by Anderson (1981) looked at student responses to seatwork in eight classrooms. She concluded that seatwork was viewed by students as something to be completed as quickly as possible, not an activity to assist them in understanding the reading process. Implicit in this finding is the suggestion that teachers rarely impart purpose or meaningful strategies for self monitoring to students when assigning seatwork.

Duffy and McIntyre (1982) also observed little instructional assistance in the primary classrooms they studied. In its place, teachers steadily moved students through basal materials, assigning workbook pages, listening to students recite from textbooks and workbooks, and responding to their incorrect answers.

Goodlad's (1983) nationwide study of language arts programs in the U.S.A. revealed a consistent pattern across grades of teachers

emphasizing mechanics and language subskills, Moreover, workbooks and textbooks appeared to define the nature of the instructional program.

In summary, the above studies indicate that much of present comprehension instruction in schools is a materials controlled, subskill-oriented approach which tends to substitute meaningless drill for purposeful reading.

The Nature of Comprehension Instruction

The pessimistic picture of current classroom comprehension instruction suggested by the above studie has caused others to question the nature of comprehension instruction, particularly as operationally defined by Durkin (1978). Restated, this definition reads: "The teacher says/does something to help children understand or work out the meaning of more than a single, isolated word." (p. 8)

There are two aspects to the "definition debate". First, researchers and practitioners alike appear to be unsure as to what Durkin's definition of comprehension instruction really means, in terms of teaching practices. Second, they query the adequacy of this definition when many children learn how to comprehend in spite of apparently limited classroom instruction.

Durkin's examples of teaching behaviors to illustrate her definition suggest that comprehension instruction should have transfer value. This interpretation appears to be confirmed in a later article describing her original findings when she commented that, "...At no time were the children told why they were studying these topics [reading skills], nor was anything done to show how they are related to reading."

(Durkin, 1981c, p. 453) This suggests the belief that at the heart of any instructional paradigm is the teacher, and reflects the common sense notion that students learn what they have been taught. Moreover, it has obvious associations with the present emphasis of researchers on "direct instruction" paradigms. Although the term "direct instruction" has no universally accepted definition (Duffy & Roehler, 1982) it is probable that the implementation of Baumann's (1983) description by teachers would do much to alleviate Durkin's concerns:

> In direct instruction, the teacher, in a face to face, reasonably formal manner, tells, shows, models, demonstrates, teaches the skill to be learned. The key word here is teacher, for it is the teacher who is in command of the learning situation and leads the lesson, as opposed to having instruction "directed" by a worksheet, kit, learning center, or workbook. (p. 287)

Researchers' major concerns in the debate over Durkin's findings have focused on the adequacy of her definition of comprehension instruction.

Drawing upon a list of instructional events by Gagne & Briggs (1974), Hodges (1980) broadened, and thereby de-emphasized Durkin's implicit emphasis on direct instruction by including such components as interrogation after reading, helping with assignments by asking additional questions, and checking of workbooks by the child and teacher. Hodges then re-analyzed Durkin's data using the alternative definition. This indicated that 23 percent of teaching time was spent in comprehension instruction. However, as in Durkin's study, direct verbal instruction by the teacher received the least emphasis, with questioning receiving the most.

Heap (1982) disagrees with Durkin (1978) on methodological grounds. He points out that Durkin's extensive observational categories

fail to cover feedback or evaluation moves by the teacher, in spite of her acknowledgement on several occasions that, "...teachers [were] interested in a correct answer..." Heap argues that if teachers' concerns had been solely or even primarily for comprehension assessment, positive evaluation discourse structures would not have been so much in evidence. Their existence illustrates what he terms, "...the social character of teacher talk in groups." Although a question may be directed at a single student, in a sense it is for the whole group. A positive evaluation of a student's prior response not only certifies to all present an adequate or correct answer, it also makes each member of the group accountable for knowing what the teacher perceives to be the correct answer. Heap further points out that, "...it is precisely this condition that makes group instruction more economical than individual instruction," (p. 406)

As an alternate methodology to Durkin's Interaction Analysis/ Ethnographic type observations, he simply recommends the audio or videotaping of classroom events without pre-coding of categories. Although labor intensive, he believes an examination of instructional sequences in this manner reveals more of the intent of a teacher's instruction.

Implications for Data Analysis

At the heart of the "definition debate" appears to be the question whether comprehension instruction should concentrate on the direct explanation of the mental processes of reading, or continue with its present emphasis on imparting a teacher certified "lesson corpus of knowledge" predominantly through comprehension assessment type questions.

If it is to be the former then teachers must explain how to perform reading tasks, not merely confront students with them. If it is the latter, then the prodding of students must be for a corpus of knowledge which extends beyond the particular context, or guessing what is in the teacher's head as an end in itself.

Students do appear to learn how to comprehend text through the course of their schooling in spite of negligible direct instruction from teachers. Although other environmental influences are possibilities, it is also likely that some instructional dimension teachers are unaware of, and do not intend, is a contributing factor. Since comprehension assessment appears so prevalent in present instruction this causes the researcher to question whether there isn't a useful component of comprehension instruction within comprehension assessment, particularly when the latter occurs as a sequence of probing questions. However, even if this speculation were proven correct, it does not negate the fact that Durkin's (1978) survey research was initiated by the National Institute of Education (U.S.A.) out of concern for falling standards in students' reading comprehension performances.

In contrast, a consistent finding of recent research (e.g. Palincsar, 1981; Raphael & Wonnacott, 1981; Hansen & Pearson, 1984) is that explicit explanation of the mental processes to acquire content, has raised performance levels, particularly with below average readers,

This study proposes to adopt Durkin's definition of comprehension instruction because it implicitly demands of teachers explicit instructional acts specifying what, how, and why reading tasks are to be attempted. However, this requirement of "teacher as teacher" rather then "teacher as monitor" appears to have had limited impact on

educators, possibly because of difficulties in interpreting Durkin's definition. To facilitate a more precise interpretation of the latter, this study also proposes to adopt Baumann's (1983) description of direct instruction quoted earlier in the chapter (p. 21).

Although recent experimental successes in direct instruction are an important factor in the adoption of this definition, more compelling reasons for doing so concern the role of the teacher and the learning outcomes of students.

The researcher agrees with Shuy (1981) that, "...Teachers need to know enough [about the complex process of reading] to be independent of the materials they use" (p. 927). The adoption of this definition credits teachers with a more ennobling role in instruction than the current emphasis on facilitating management, delivery and time on task. It requires the study to focus on explicit initiatives taken by a teacher to explain what reading task is being taught, how it is to be performed, and why it was necessary to learn. The definition does not accept merely confronting students with a passage and subsequently asking questions about it. To do so would be to raise the explanation of the content of a passage to the level of an explanation about the mental processes needed to acquire that content.

Shuy (1981) also points out that teacher education institutions have not provided present teachers in the field with a sound theoretical foundation on which to make intelligent decisions about reading instruction. By adopting Durkin's definition (thus increasing the likelihood of replicating the dismal findings of earlier studies) it may appear as if the study is intent on portraying teachers in a less than complimentary way. On the contrary, the rationale for doing so

is to highlight the fact that until recently there was little specific knowledge available to teachers regarding the nature of comprehension, either through teacher training institutions or within the professional literature. Although instructional practices as defined are likely to be limited in the study, any that are described would indicate the initiative, resourcefulness, and potential of practicing teachers despite this lack of assistance.

Student learning outcomes considered desirable by Duffy, Roehler & Mason (1984) were the final determinants in adopting Durkin's definition. Duffy et al. believe comprehension instruction should emphasize both strategy learning and content knowledge. The first enables students to become thoughtful, independent readers by making them more aware of procedures to understand, analyze or evaluate how comprehension occurs. The second refers to selecting, constructing or expanding knowledge frames worthy enough to be learned from what is being read. This places the teacher in an instructional decision-making role both in the selection of quality of text and in determining how to "build bridges" explicitly between known and judiciously selected new knowledge.

The intent to facilitate the development of an active, independent reader must be perceived in what a teacher says or does, by the researcher, for it to be categorized as comprehension instruction. To accommodate Hodges' concerns Durkin's definition will be broadened to include teacher classroom behaviors other than direct verbal instruction. Heap's vantage point is acknowledged by the researcher proposing to look for instructional intent within a sequence of connected, comprehension assessment questions. Attempts by the teacher to clarify ambiguous

responses, simplify difficult questions or focus on a specific part of text, are to be interpreted as a concern to certify and impart to students a valued part of the "lesson corpus of knowledge".

TEACHERS' QUESTIONING IN READING

The prevalence of teaching by questioning has been found in previous reviews of studies going back to the turn of this century (Gall, 1970; Hoetker & Ahlbrand, 1969). Recent studies of classroom teaching (Dillon, 1982; Durkin, 1978) confirm that it is still widely used.

Since questions occur so frequently, this naturally raises further questions as to their effects on students. Do questions, for example, promote the development of thinking skills? Are some questioning practices more effective than others?

Researchers have developed many systems for classifying teacher questions (Guszak, 1967; Ruddell, 1974; Harris & Sipay, 1980). However, their categories can usually be simplified into either fact or higher cognitive type questions. Fact questions require students to recall previously presented information, whereas higher cognitive questions require independent thinking.

It would seem self evident that students learn more when teachers emphasize higher cognitive questions over fact questions. In reality, research findings are mixed.

Rosenshine's review (1976) of three large correlational studies in the early 1970's indicated that students learn best when teacher questions, "...tend to be narrow, pupils are expected to know rather than guess [the] answer, and the teacher immediately reinforces an

answer as right or wrong" (p.365). Winne's review (1979) concluded that, "...where the teachers use predominantly higher cognitive questions or predominantly fact questions, it makes little difference in student achievement" (p. 43). Redfield & Rousseau (1981) subsequently reviewed the same set of studies examined by Winne. Using a more sophisticated method of meta-analysis Redfield and Rousseau concluded that, "...predominant use of higher level questions during instruction has a positive effect on student achievement" (p. 241). Gall (1984) believed these contradictory conclusions could be resolved by analyzing the student populations in the above reviews. Taking these differences into account, Gall's conclusions were:

1. Fact questions are more effective for promoting young disadvantaged children's mastery of basic skills;
2. Higher cognitive questions are more effective with average and high ability students, especially in high grades.

However, Gall emphasized that young disadvantaged children should also be exposed to higher level questions to stimulate development of their thinking skills.

A consistent finding of studies is that approximately 60 percent of teachers' questions require students to recall facts, about 20 percent require independent thinking and the remaining 20 percent are procedural (Gall, 1972). These figures suggest that teachers are aware of different kinds of questions. However, their typical questioning activities demonstrate lack of variety and challenge to students, in the form of knowledge-based or inferential questions, in spite of research evidence to the contrary.

Chou-Hare & Pulliam's (1980) study provided teachers more time to reflect on their question formations by asking them to write examples (with correspondingly appropriate answers) that they would likely use in a basal reading lesson. Their analysis, using Guszak's (1967) question categories, suggested that teachers have not substantially changed their questioning practices in the last decade.

Recent efforts have been made to conceptualize the process of answering teacher questions. Gall (1984, p. 42-44) hypothesizes that a student's answer to a typical teacher question based on the content of text, may involve five stages.

The first stage is for the student to attend to the question. Without this, a student is not only unable to answer, s/he cannot profit from listening to another student's response. This factor may also explain why teachers use easily answered, factual questions as a means of engaging the attention of young, slow learning students.

The second stage is to decipher the meaning of the question. For middle grade students the difficulty is not so much with syntax as it is with the tendency of teachers to generate questions spontaneously. By doing so, some are likely to be poorly phrased. Students avoid asking for clarification since this may be interpreted as criticism of the teacher.

A third step requires the generation of covert response before putting it into words. This requires prior knowledge, or the cognitive abilities to recognize or manipulate information from the text. Obviously the greater the cognitive challenge provided by a question, the longer teacher "wait time" should be. However, Rowe (1974) found that teachers generally wait one second for an answer before repeating

or redirecting a question. Dillon (1981) observed that when teachers asked fewer questions per minute, the length of student's answers increased.

Stage four, the generation of an overt response, does not automatically follow from the previous covert response. Some students by nature are reticent; most students face the reality of competing for "air time".

The final state may require a student to revise a covert or overt response in light of their classmates' contributions to a teacher/student verbal interaction. The quality of learning that takes place, however, appears to reflect the tenacity of the teacher for securing clarity, plausibility and accuracy in students' responses. The implications from schema theory seem particularly appropriate at this point. As students are theorized to draw upon their existing knowledge constantly, their responses to questions about text will naturally include elaboration on what is stated in the material. An implication is that teachers should be flexible enough to accept any reasonable answer. Research has already indicated that teacher acceptance of student ideas is positively correlated with student learning gains (Gage, 1978). A second implication from schema theory is that the drawing of inferences is crucial to comprehension and should receive greater emphasis in questioning. Questioning sessions should also include "probing" questions as this reveals the teacher's concern to clarify misconceptions in schemata or inconsistencies in reasoning. To facilitate this, Anderson (1977) suggests Socratic teaching techniques in which, "...it is the student [not the teacher] who forges the conceptual system." (p. 428)

A more basic issue to be addressed in this review, is whether questions are effective, irrespective of cognitive level. Gall et al. (1978) compared the performances of students who reviewed a section of a textbook both with and without the aid of teacher questioning. Students who participated in teacher questioning performed better than those that didn't on both fact and higher cognitive learning. Research on questions inserted into text has yielded similar results (Andre, 1979). Durkin (1981a) analyzed research on the placement of questions in the instructional sequence. Despite teachers' predominant use of questions for comprehension assessment purposes found in her two earlier studies, Durkin concluded that posing questions, regardless of placement, promotes increased comprehension of text. However, she also points out that:

> "...since the same research indicates that questions have this positive effect, because they encourage readers to give more time and concentrated attention to what is related to answering them, anyone who questions should feel obligated to choose only those that deal with important context." (p. 38)

Inherent in this statement is the potential of teachers' questioning to divert readers from, as well as lead them towards meaningful interpretation of text. Research, therefore, seems to be agreeing with Hansen (1977) who suggests that, "...if we wish to produce better comprehenders, we must begin by becoming better questioners." (p. 65)

However, it is only recently that researchers have indicated important aspects of context for questions to focus on. In doing so, a fundamental purpose of questions appears to be that of fomenting discussion rather than assessment.

Beck (1984) suggests that teachers generate questions based on the key idea identified by creating a "story map" for a story. Pearson (1984) cautions that, "...guided reading questions should be limited to eliciting only those details that drive the flow of the story, that is, problems, goals, attempts to solve problems, characters' reactions, resolution, and theme (or moral)" (p. 727). Recent research evidence (Gordon & Pearson, 1983; Singer & Donlan, 1982), indicates improved comprehension not only for stories approached in this manner, but also for students' independent reading. This is particularly evident where the systematic application of such frameworks has emphasized inferential type questions.

Building students' background knowledge prior to story reading has long been advocated by teacher training institutions. Recent research, however, indicates that literal/factual orientation questions are inferior to those that invoke prior knowledge relating to text, and those that engage in and later evaluate predictions. Pearson (1982) suggests the following instructional guidelines to teachers in asking questions about story:

1. Ask questions that encourage children to relate the story to prior experiences.

2. Then, try to elicit predictions about what story characters will do in similar circumstances.

3. Ask purpose setting questions that persist as long as possible throughout the reading of a selection.

4. Immediately after reading, return to the purpose.

5. Use a story map to generate guided reading questions.

6. Include follow-up tasks that encourage synthesis of the

entire story (retelling, dramatizing, summarizing).

7. Reserve comparison questions (with prior knowledge and other stories) for a second pass through.

8. Reserve author's craft questions (e.g. techniques for persuasion) for a second (even a third) pass.

Recent research evidence also advocates new approaches to vocabulary instruction. These emphasize where a word fits in a child's semantic repertoire. Johnson (1983) suggests that teachers change their concerns from, "What is it that children do not know and how can I get that into their heads?", to the more useful question of, "What is it that children do know that is enough like the new concept so that I can use it as an anchor point?" The goal of subsequent questioning is to emphasize "ownership" rather than correct definition and usage.

Another challenge for practising teachers comes from research on the question-answering process. The findings indicate that improving teachers' questions does not necessarily illicit good student answers. Students need to learn the response requirements of different types of questions. Raphael & McKinney (1983) used Pearson & Johnson's (1978) trichotomy for classifying question-answer relations (text-explicit, text-implicit, and script-implicit), to teach 5th and 8th grade students how to vary strategies as a function of the task demands of a question. After students had learned to label these strategies as, "right there", "think and search", and "on my own", the researchers found that students of all ability groups at both grade levels were better able to comprehend new texts and to monitor their own comprehension.

A controversial issue confusing educational practices has been whether reading comprehension is teachable. The above and other recent

studies give support to the contention that comprehension can be taught directly. They also highlight the key role teachers' questioning plays in bringing this about.

TEACHERS' THEORETICAL ORIENTATIONS TO READING

A current notion in reading instruction is that teachers make decisions in light of the theory or assumptions they hold about reading and learning.

Harste & Burke (1976) define this system of beliefs or theoretical orientation as, "a network of assumptions through which experiences are organized and acted upon." (p. 210) These researchers indicate that teacher decisions based on their theoretical orientation to reading involve:

1. What goals are set for the reading program;
2. What environment is thought of as most conducive for reading proficiency;
3. What reading behaviors are thought of as good or bad;
4. How reading growth is measured;
5. What procedures, materials and activities are used for instruction, and diagnosing reading problems;
6. What weight is given to diagnostic information.

Furthermore, Harste & Burke (1976) hypothesize that all teachers hold a consistent theoretical position whether they realize it or not. This is directly at odds with those who argue that they hold an eclectic stance. The eclectic teacher claims that no one method or practice is the best, that they take from the available pool of practices and

theories the ones that work for them. As a result of their many observations of teachers and learners, Harste & Burke (1976) refute this claim, noting that, "...Despite atheoretical statements, teachers are theoretical in their instructional approach to reading." (p. 212) Shuy (1981) appears to agree with this stance, suggesting that, "...One of the worst misuses of such theory [segmental -v- holistic] is to claim that one uses them both in a sort of eclectic fashion. Eclecticism is really the absence of theory." (p. 921)

There appears to be no observational studies conducted at an upper elementary level to verify Harste & Burke's hypothesis. Watson's (1984) findings however, indicated that both grade one teachers she observed adhered closely to their respective theoretical models. The Skills teacher focused on small units of language, acquisition and mastery of rules and phonics, considered reading an exact representation of text, selected, initiated and closely supervised all reading activities, utilized workbooks, flashcards, controlled vocabulary stories and encouraged students to read to remember characteristics of, or facts from, text.

The Whole Language teacher focused on diametrically opposed aspects of instruction. This included attending to the larger units of language, encouraging students to construct personal meaning, permitting reading miscues, involving students in planning, utilizing library books and other texts, and encouraging students to "think about and feel" what they read.

Reading research on the nature of the reading process appears to fall within either the "mechanistic" or "organismic" theory models, as described by Steiner (1977):

> A machine is an object that consists of parts that act in predetermined ways to bring about certain specific effects. Thus, in such an object the parts have natures which are non-alterable. These parts consequently, have fixed actions. The actions which are specific to a certain kind of machine result from a combination of parts. The effects are linear and additive. Therefore, in a mechanistic state of affairs the emphasis is on its parts which are taken as non-modifiable and as the determining factors.
>
> An organism is a structured whole, i.e. one in which the content and form of its parts are determined by its function. Thus, in such an object the parts do not have non-alterable natures and so fixed actions. Rather parts act interdependently to maintain function, and thereby wholeness. The parts do not simply combine and then determine what the whole is to be. The content and form of the parts change relative to a whole. Therefore, in an organismic state of affairs the emphasis is on the whole or state of affairs taken as determining its parts.

While there are many models of reading described in the research they may be viewed as a code-to-meaning continuum requiring instructional practices to focus on increasingly larger units of language.

Gough (1976) epitomizes a polar position focusing on smaller than word level language units. He has described "one second of reading" as a letter by letter feeding in of information in an intricate maze from eye fixation, through icon, letter identification, lexical search, short term memory and long term memory with rule and experience mappings.

LaBerge & Samuels (1976) occupy a more central position on the continuum focusing on basic word units. They view reading as a complex skill with many subcomponents that have to be coordinated and drilled (made automatic). The use of feature detectors in the perception of letters, spelling patterns, words, and word groups, is highlighted.

However, both Gough and LaBerge & Samuels represent mechanistic, date driven ("bottom-up") theoretical models, emphasizing the teaching of discretely defined subskills.

Goodman's research (1970) represents the other polar position on the continuum where meaning is at the core of the language process. He suggests that reading is a language based process in which the reader uses existing language competence to develop control over written language. In using language, the reader predicts from phoneme/grapheme, syntactic, and semantic cueing systems, and only samples enough information from these three systems to confirm and comprehend. Because language background and experiences may differ, alternate responses may be predicted. If no contradictory information is produced by this process, reading continues without interruption. This model exemplifies the organismic, conceptually driven ("top-down") model where the emphasis is on prediction of meaning.

The three exemplars of theoretical models given above are reflected in a further but less precise continuum of instructional practices and materials within schools (see Table 2.1).

Phonics and skills orientations to teaching tend to share instructional practices and are, therefore, commonly grouped under the term "Traditional Skills". The language orientation has little in common with the latter since no element within it can be singled out without interfering with the process. Not surprisingly this orientation is frequently referred to as "Whole Language".

Gove (1983) summarized a series of studies on teachers' beliefs about reading conducted by Bawden, Burke & Duffy (1979). With minor adaptations her "Summary of Beliefs" (p. 266) is reproduced (see Table 2.2). The objective of this chart is to demonstrate the diametrically opposed nature of extremists' beliefs the two theoretical orientations under study may generate.

Table 2.1

Continuum of Instruction and Materials*

Phonics	Skills	Whole Language
- isolation of phonemes; emphasis on decoding; gradual progression to word units and attention to comprehension.	- isolation of skills; emphasis on building adequate sight word vocabulary through frequent practice; word attack skills taught in hierarchical sequence.	- quality literature from outset of instruction; initial emphasis on developing sense of story, as framework for focusing on smaller units of language; student/group generation of stories; shared reading and student writing integral to program.
Text exemplar: McCracken & Walcutt, Basic Reading Series (Lippincott, 1975)	Text exemplar: Clymer, Bisset & Wulfing, Reading 720 (Ginn & Co., 1976)	Text exemplar: Martin & Brogan, Sounds of Language Program (Holt, 1972)

* After Deford (1984)

Table 2.2

Teachers' Theoretical Orientations Toward Reading
Summary of Beliefs*

Concept Areas	Bottom-Up Models of Reading ("Skills")	Top-Down Models of Reading ("Whole Language")
Relationship of word recognition to comprehension.	Believe students must recognize each word in a selection to be able to comprehend the selection.	Believe students can comprehend a selection even when they are not able to recognize each word.
Use of information cues.	Believe students should use word and sound-letter cues exclusively to determine unrecognized words.	Believe students should use meaning and grammatical cues in addition to graphic cues to determine unrecognized words.
View of reading acquisition.	Believe reading acquisition requires mastering and integrating a series of word recognition skills.	Believe students learn to read through meaningful activities in which they read, write, speak and listen.
Units of language emphasized instructionally.	Letters, letter/sound relationships, and words.	Sentences, paragraphs, and text selections.
Where importance is placed instructionally.	View accuracy in recognizing words as important.	View reading for meaning as important.
Student evaluation.	Think students need to be tested on discrete subskills.	Think students need to be tested on the amount and kind of information gained through reading.

*After Gove (1983)

"LOOKING INTO CLASSROOMS" RESEARCH

Duffy's (1982) review of "looking into classrooms" research suggests that the actual instructional practices of teachers professing markedly different theoretical orientations to reading, may be more similar than dissimilar. He views this as a consequence of teachers having to accommodate the complex realities and constraints of classroom life. Conditions appearing to limit teacher decision making and instructional options include:

1. The complex social context of the classroom, demanding management of groups, creation of learning climate, and establishment of efficient routines;

2. Preserving smooth activity flow as a primary means of maintaining student control;

3. Accountablity, including end-of-year, skills-based achievement tests, administrative and parental expectations that "basics" will be covered and classrooms orderly;

4. Substantially different role expectations at the classroom, school and professional level;

5. Security of employment in times of shrinking enrolments.

These conditions are perceived by teachers as demanding immediate attention. Consequently theory is relegated to the background where it cannot function as the primary cognitive structure for determining instructional alternatives.

Some educators believe these overriding concerns are little more than rationalizations put forward by insecure teachers, not wishing to move out of the comfortable niche they are in. Duffy's (1982) review, together with his recent experiences of classroom teaching during a

sabbatical leave, indicates otherwise. He believes that:

> Teachers are highly conscientious, diligent and caring people, but they are also human. Like most humans they must find ways to simplify the complexities of their workplace - to make their daily lives manageable. For many, [in reading instruction] this simplification apparently involves the employment of a monitoring approach to instruction, an emphasis on accurate decoding rather than meaning and differential instructional treatment for the low [ability] group. Such practices, while conflicting qualitatively with the recommendations of reading educators, nevertheless persist because teachers know no other way to deal efficiently with the alligators in their environment. (p. 364)

SUMMARY AND IMPLICATIONS FOR THE STUDY

In summary, major findings are presented from each of the sections within the review.

The schema theoretic view of the reading process portrays a reader as actively constructing meaning among the parts of the text, and between the text and personal experiences. The text itself is but a blueprint for the creation of meaning. Comprehension and retention are enhanced by strategies for relating text with personal knowledge and experience.

Recent survey research provides little evidence that comprehension is taught at all in elementary schools, much less taught well. However, these findings have sparked a debate as to what constitutes comprehension instruction. They also indicate that implications of recent research into comprehension as process, have yet to be reflected in instructional practices.

Teacher posed questions have long been acknowledged as a major tool for developing comprehension skills during reading instruction. Despite this acknowledgement, a consistent research

finding has been that the majority of questions require only a literal recall of text based information. However, studies on the nature of questions used in classrooms have been described regardless of teachers' theoretical orientations to reading.

A current notion in reading instruction is that teachers make decisions which reflect the theoretical orientations they hold toward reading and learning. It is further hypothesized that all teachers hold a consistent theoretical position whether they realize it or not. The influence of theoretical orientation on instruction may determine the choice of materials and activities, the reading behaviors thought desirable, and the manner in which reading growth is evaluated.

Instructional practices appear to reflect a code-to-meaning continuum focusing on increasingly larger units of language. Traditional Skills teaching appears to emphasize data driven ("bottom-up" processing of discretely defined, hierarchically arranged subskills. In contrast, Whole Language instruction reflects a conceptually driven ("top-down") form of processing where prediction of meaning, based on the larger units of language is emphasized.

The final section on "looking into classrooms research" indicates that teachers professing markedly different theoretical orientations to reading for "empty classrooms", may be compelled to exhibit similar instructional practices within the realities of "full classrooms". This is viewed as a consequence of teachers having to accommodate constraints such as accountability where administrators and parents are perceived to require an orderly flow of classroom activities, emphasizing the "basics".

Implications for the design and interpretation of the present study, derived from the review, include the following:

1. Schema-theoretic research emphasizes the importance of teachers determining, developing and activating students' background knowledge for a topic to be read, together with the appropriate schema for story or exposition. Schemata must further be maintained throughout the reading. Students emphasizing "bottom-up" processing may have difficulty doing so; their attention is diverted to analyzing low-level text units, leaving little cognitive capacity for the discernment of a text's overall meaning.

2. Schema theory has important implications for teachers' questioning, beyond those already given. Since it indicates that readers draw constantly upon their existing knowledge, their responses to questions about text will naturally include elaborations on what is stated in the material, if encouraged to do so. This implies that teachers' questioning should be flexible and accepting, in receiving any reasonable response. Frequent inferencing is necessary in the process of working through text, so questions should encourage that form of behavior. Schema theory indicates that the deeper a student processes text the more s/he will remember and understand about it. This highlights the need for probing questions which seek to clarify misconceptions in schemata or inconsistencies in reasoning. Questions should exhibit a line of progression leading students through the main crises or events of a passage in order to build a coherent representation of its meaning. The most effective timing for literal level questioning appears to be during a reading but only as it serves to

illicit details that are essential to the flow of a story. Literal recall should not be the focus of questions after reading. This practice conveys to students the impression that reading is remembering facts rather than the creation of understanding. Instead, questions should encourage summarizing the whole text, relating it to information in other texts and to that already known by the reader(s).

3. Since comprehension requires readers to use relevant schemata from their memories, the more schemata possessed by individuals the more likely will be their comprehension of a passage. This implies that the development of vocabulary should assume a major role within a reading program. The schema-theoretic view further implies that new vocabulary should be introduced and practiced in a meaningful context, "building bridges" between this new knowledge and the reader's personal experiences. However, a judicious selection of vocabulary is indicated, largely determined by the key concepts believed necessary to the understanding of a passage.

4. Readers receiving lengthy exposure to "bottom-up" processing instruction may exhibit oral reading errors reflecting an over-reliance on graphic features. In addition, they may give verbatim answers from the text when inferences, drawing on prior knowledge, are requested. An over reliance on "top-down" processing, however, may result in a cursory ("gist") form of reading. Questioning will only diagnose and overcome these limitations if it requires careful, critical reading of text.

5. A question or segment of instruction is successful to the degree it enables students to be aware of the procedures to understand, analyze or evaluate how comprehension occurs.

In conclusion, the fundamental finding of this review is stated below. Given the focus of the study it was stated in question form thereby assisting the data analysis which follows in Chapter 3 (Design of the Study).

Are students enabled to become more thoughtful, independent readers by virtue of this segment of instruction?

Chapter 3

THE DESIGN OF THE STUDY

This chapter will describe the design of the study. It will include the subject selection instrument, piloting an effective audio taping procedure, selecting the sample, and data collection and analysis.

THE DESIGN

The major purpose of this study was to investigate the relationship between the classroom questioning characteristics of teachers selected as exponents of either Skills or Whole Language theoretical orientations towards reading. To accomplish this a subject selection instrument was developed and validated, and audio recordings made of subjects' regular classroom comprehension instruction in reading. Recordings were transcribed and teachers' questions coded and tabulated. Descriptive data from field notes and a Teacher's Professional Data form were also analyzed and tabulated where feasible.

THE THEORETICAL ORIENTATION TO READING (THOR) QUESTIONNAIRE

As part of the subject selection criteria for this study, a questionnaire was developed, from the responses of which could be inferred teachers' theoretical orientations to reading. The following procedures were used:

1. Existing measures of theoretical orientation were identified and DeFord's (1979) Theoretical Orientation to Reading Profile (TORP), and Duffy & Metheny's (1979) Propositions About Reading Instruction (PRI), selected for further examination. Both the TORP (28 statements - 3 subscales) and the PRI (45 statements - 5 subscales) provided categories that may be interpreted as Skills or Whole Language theoretical orientations. However, both instruments appeared cumbersome, as they required a respondent to complete response statements for other orientations not under study, in order to abstract these two particular categories.

2. Major discriminating items from both measures were pooled with others written by the researcher and his faculty advisor. Ambiguous items were rewritten or discarded, after discussion with graduate students in the field of reading, and/or language arts.

3. Twenty-two randomly ordered statements were arranged in a questionnaire format utilizing a Likert seven point scale response continuum between the descriptors "Strongly Agree" and "Strongly Disagree" as polar positions.

4. Two copies of the questionnaire were forwarded to faculty and graduate students specializing in reading and/or language arts within the Department of Elementary Education. An accompanying letter requested each respondent to reflect what they perceived to be the responses of a Skills teacher on one copy and a Whole Language teacher on the other. Sixteen of twenty respondents returned questionnaires for an informal item analysis.

5. Responses were scored by assigning them from one to seven points - seven for strong agreement with the wording of a statement,

one for strong disagreement. Scoring was dependent upon the relationship between the positive or negative wording of the statement and the theoretical stance adopted.

6. In order to eliminate the less effective items from the instrument a frequency distribution of the sixteen respondents' scores for both theoretical orientations was tabulated (Table 3.1). Items 10 and 22 were discarded as they did not appear to clearly discriminate between Skills and Whole Language responses. The remaining twenty items, with minor wording revisions, comprised the Theoretical Orientation to Reading (THOR) questionnaire (See Appendix A).

7. Plastic overlays were prepared for ease in identifying and scoring the extreme profiles of Skills and Whole Language subjects required for the purposes of the study.

PILOT STUDY OF AUDIO TAPING PROCEDURES

The study required an audio-taping system which had the capacity to accommodate normal verbal classroom interactions between teacher and student(s), under a potentially wide variety of instructional situations.

After securing written approval from a large urban school system, two piloting sessions were carried out in a school previously familiar to the researcher during February, 1985. The grade four classroom allocated by the principal presented challenging recording conditions. In addition to its large size, the room included portable fibre panel walls, carpeted flooring, and a suspended ceiling, (with enclosed fluorescent lighting) supporting two, four-bladed air circulation fans.

Table 3.1

THEORETICAL ORIENTATION TO READING (THOR) QUESTIONNAIRE: Development and Validation

Responses of 16 Graduate Students and Faculty in Reading/Language Arts

when Adopting Skills and Whole Language Theoretical Stances

	SKILLS ORIENTATION RESPONSES							WHOLE LANGUAGE ORIENTATION RESPONSES						
Item No.	SA 7	6	5	4	3	2	SD 1	SA 7	6	5	4	3	2	SD 1
1	7 2	6	4							3		2	7 2	
2	2	6 4	2	1			2		1		1	2	6	6 3
3	7 1	4	6		1			1				1	6 1	6 3
4		1				8 3	7 2	2	7 2	2	2	2	1	
5		1	1		4	8 3	2	7 2	4	3	2			
6	7 2	7 2	2							1	1	3	6	7 1
7					7	6 1	7	7 3	7	2	1			
8	7 7 3	3							1	2	1	2	3	7 2
9		1		1	1	6 1	7 2	7 1	7	4			1	
* 10	7 4	7 2							1	2	3	4	4	2
11					1	6 6	7	7 3	7	1	2			
12					7 2	3	7 1	7 3	4	2	1	1		
13	1	1	1		3	6 1	4	7 3	4	2	1	1		
14	7 7	4	2									2	4	7 7
15			3	1	3	6 2	2	4	7	3	3		1	
16	7 3	7	3						1	1	6	3	3	3
17	7 2	7 2	2						1	3	3	2	7	2
18					2	6 4	7	7 7 3	2	1				
19					1	6 4	7 1	7	7 1	3			1	1
20	7 3	4	3			1					1	1	7 4	7
21	7 3	7 1	2							1	3	1	7 1	7
* 22	7	7 2	4					1	2	4	2	4	2	1

* Items discarded on basis of analysis.

The initial system developed by the Instructional Technology Centre (ITC), within the Faculty of Education, at the University of Alberta, consisted of four Dukane, omni-directional microphones suspended by their cables from the ceiling. This was ineffective for two reasons. First, the interference from the fluorescent lighting was substantial. Second, this type of microphone was not sensitive enough, either at ceiling or floor level, to produce a transcribable signal/noise ratio.

An extremely sensitive "shot-gun" type microphone was also dismissed, as it demanded the near-impossible task of anticipating the next speaker(s) in normal classroom interaction. Moreover, unless aimed accurately, non target sounds such as pages being turned by a respondent, would receive the same amplification as his/her desired verbal response.

Four Sony ECM-270 electret condenser, uni-directional microphones each powered by a single "AA" cell were substituted and proved acceptable. Microphones used floor mounted stands when placed on the perimeter of the grade's desk arrangement. Within the perimeter desk mounted stands were chosen so as to provide less obstruction to the normal movement patterns of the room. Cables taped to the floor fed into a Shure M68 channel microphone "mixer". The latter enabled the researcher to select for further amplification the signal input from the microphone closest to the desired verbal response. At the same time it provided the means to reduce conflicting background noise from one or more of the remaining microphones. Output from the mixer fed into A Sony TC105 reel to reel tape recorder operating at a speed of 4.8 cm/sec. Headphones plugged into the "monitor" socket enabled a

constant monitoring of the recording.

A wireless transmitter microphone worn by the teacher ensured an accurate recording of her questioning and preserved complete freedom of movement. The signal was picked up by a remote receiver and passed via the mixer's selective control to become part of a single reel-to-reel recording for all five microphones.

The wireless microphone's performance deteriorated shortly after the conclusion of piloting, and could not be rectified in time to begin the study. However, it was decided to use the balance of the equipment as a proven back-up system.

The primary recording task was carried out using a Realistic 32-1221 wireless F.M. microphone system. This required the teacher to clip a batter powered ("AA") miniature transmitter to her belt or pocket and an electret microphone to clothing under the chin. The teacher's voice was transmitted to an AC powered remote receiver which fed the signal into a Realistic 32-1210 stereo four microphone mixer requiring a 9V battery. Feeding into the same mixer, via cables taped to the flooring, were two battery powered ("AA") Realistic 33-1090 PZM microphones. The latter were 14 x 12 cm. metal plates, which transform any flat surface they are placed on into an "echoless" sound gathering surface. These omni directional microphones were usually placed on students' desks towards the centre of the room. The mixer's selectively conrolled output fed into a Realistic SCT-24A stereo tape recorder using a Dolby noise reduction system. Stereo headphones plugged into the tape recorder enabled a constant manipulation of mixer and volume controls to ensure satisfactory recording.

Previous research findings (Barr & Dreeben, 1983) have found

great stability among teachers with repeated observations of their instructional performances. It was, therefore, decided that three recordings per subject in the main study were appropriate to procure clear insights into their regular classroom comprehension instruction.

Since it is common practice for elementary schools to schedule language arts for complete periods either before or after morning recess, a forty-five minute taping was considered sufficient time to capture the usual comprehension instruction characteristics of a teacher without having to record substantial amounts of non instructional activities, i.e. opening exercises, preparations for and clearing away after instruction etc. To further ensure a concentration on the instructional component, subjects were to be asked to indicate to the researcher when recordings should commence within their lessons.

The choice of forty-five minutes also avoided the necessity of transferring from one side of a cassette tape to another within a recording session to obtain a longer recording period. Although audio tapes were available providing sixty-minutes per side ITC pointed out the increased likelihood of breakage due to the tape having to be made thinner to fit the same cassette case dimensions. Realistic 44-603 C90 tapes were chosen to standardize time and quality of recording from one classroom situation to another.

In summary, each forty-five minute classroom recording was made using two concurrently running systems. The primary system comprised a teacher's wireless FM microphone and two desk positioned metal plate microphones feeding via a mixer to a stereo cassette tape recorder. The back-up system consisted of four unidirectional microphones, two mounted on floor stands peripheral to the students' desks and two using desk

mounted stands near the centre of the room. These fed by way of another mixer to a reel-to-reel tape recorder. A typical classroom arrangement of these two systems is shown in Figure 3.1.

Procedures decided upon for the main study included three, forty-five minute audio taping sessions per subject, with the latter determining the commencement of each recording.

SELECTION OF SAMPLE

The sample for this study comprised five grade five teachers and one grade four/five teacher selected from two school systems within a large urban centre in Alberta. Three were chosen as exponents of a Skills theoretical orientation to classroom reading instruction, and three, a Whole Language approach.

After securing written approval from both school systems to conduct the study, potential subjects were identified using the following procedures.

1. In one school system the Supervisor of Language Arts recommended individual teachers to contact. These choices were later confirmed by their principals. In the other system, the Supervisor together with an elementary level Language Arts consultant, recommended specific schools. Principals' recommendations only were obtainable in the latter procedure.

2. The study had initially proposed to use grade four teachers. This was to provide a basis on which to make comparisons with Durkin's (1978) seminal findings concerning reading comprehension instruction derived predominantly from the same grade level. However,

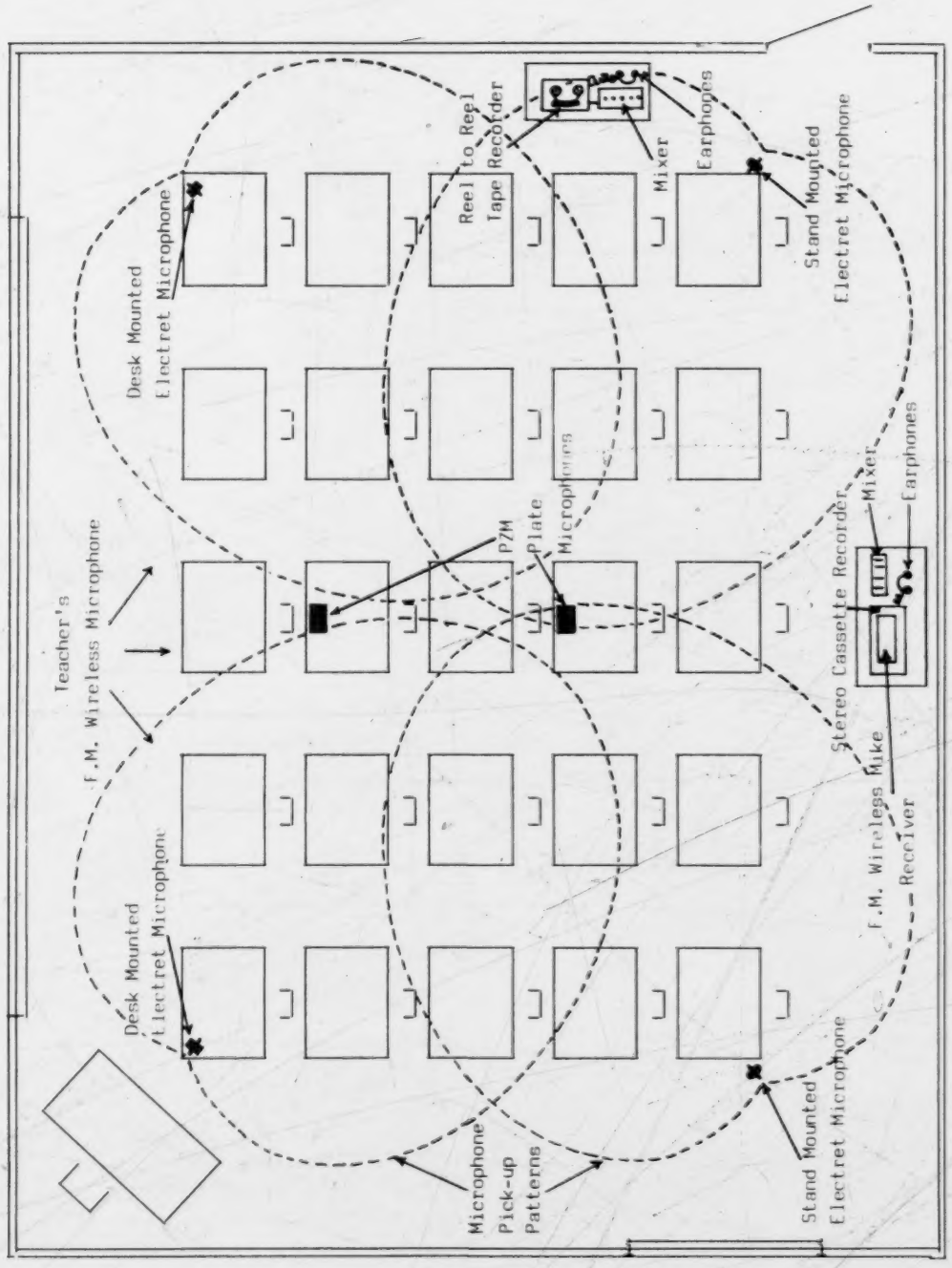

Figure 3.1

Typical Classroom Arrangement of Primary and "Back-Up" Audio Taping Systems

despite contacts being made with approximately forty schools, insufficient numbers were identified, requiring the participation of grade five teachers instead.

3. With the permission of principals the preliminary pool of candidates was contacted by phone to see if they were able to fulfil three criteria:

a) A willingness to participate in the research.

b) A willingness to complete the THOR questionnaire.

c) A minimum of three years teaching experience.

4. Nine teachers (all female) were identified and mailed the THOR questionnaire. An accompanying letter gave directions as to how to complete the instrument and an assurance concerning the confidentiality of responses (see Appendix B).

5. Three teachers' responses indicated overwhelming agreement with the THOR questionnaire's Whole Language profile. Out of a total possible score of 140 their scores in descending order were 137, 128 and 122. No response indicated any degree of support for Skills oriented statements. Only three neutral responses were evident. These were confined to the lowest scoring questionnaire. These teachers were selected as three of the six subjects for the study.

6. None of the remaining six candidates could be judged as being in substantial agreement with the THOR questionnaire's Skills profile. However, the group divided itself into two types of respondent. The first appeared to be equivocal about their underlying beliefs concerning reading instruction. This was suggested by the substantial number of neutral and/or middle range responses. The second type exhibited fluctuating responses between more extreme values for both

theoretical orientations. However, their individual total scores for each orientation clustered closely around the questionnaire's neutral total score. The three teachers, with profiles displaying the greater number of extreme scores for both orientations, were chosen as the three remaining subjects for the study. Although the classroom practices of all three had been previously recommended by principals as "Traditional Skills" in nature, their fluctuating THOR responses suggested an eclectic form of underlying belief system concerning reading instruction. This group as a whole, therefore, will be described as Skills/Eclectic for the balance of the study.

DESCRIPTION OF SUBJECTS

Professional background information on each of the study's subjects was collected using the Teacher's Professional Data form (see Appendix C). This was handed to each subject at the conclusion of recording sessions for completion and forwarding in their own time. The form did not require the entry of a subject's name, address or school, thus helping to preserve the confidentiality of returns.

The subjects' professional background information will be analyzed, tabulated and discussed in relation to research questions 8 and 9 in Chapter 4. In brief, however, completed forms did indicate that all subjects were experienced teachers with a range of from 6-17 years experience. Teaching experience completed at a grade five level varied from 1 to 6 years with an average of 4 years for each group.

DESCRIPTION OF CLASSROOMS

Classrooms in the study were described independently by principals and subjects as reflecting either average or low-average socio-economic status. Class sizes ranged from 18 to 30 students. When comparing Skills/Eclectic with Whole Language teaching situations as a whole, neither group appeared to be unfairly weighted in terms of socio-economic status or class size.

COLLECTION OF THE DATA

Each teacher requested three consecutive days of audiotaping to be completed in a single week. Data took seven weeks to collect commencing at the beginning of March, 1985. Recording sessions typically began on Tuesday with equipment being set up after school the evening before. Although placement of equipment was generally as shown in Figure 3.1, microphone positions were adjusted according to where the teacher indicated her instructional time was usually spent.

Prior to the first recording a letter to parents, informing them of the general nature of the study was handed to the teacher for distribution. At the same time the subject was reminded of the purpose of the recordings, using the following verbal statement:

> "I would like to record what you typically do in your reading comprehension instruction to facilitate students' learning."

Most sessions were recorded shortly after some form of opening exercises. The back-up recording system was begun before, and stopped after, the primary recording system. The researcher initiated the

latter on receiving a pre-arranged signal from the teacher. This ended forty-five minutes later when the stereo cassette tape recorder automatically shut itself off. Each teacher was aware of the duration of the recording and the manner in which it was to be terminated. During the taping the researcher operated the primary recording system's mixer and receiver volume controls, to ensure the best possible recording. The concurrently running back-up system was not monitored at all.

Field notes were made of materials and activities utilized during instruction. Photo-copies of all text materials were obtained to assist in data analysis.

On concluding the series of tapings, each subject was asked to indicate which two of the three recordings most typified her regular reading comprehension instruction. The designated tapes were transcribed verbatim, and the typist's transcriptions checked against the original recordings by the researcher.

DATA ANALYSIS

Research Questions 1-5

The researcher's categorization of teacher questions on transcripts, involved the following procedures:

1. A tentative identification of all questions was made. Questions throughout the analysis included directive statements since the intent of both is generally the same, that is, to elicit a response. For example:

Direct Statement	Question
- "Remind us about what has happened in the story up to this point."	- "What has happened in the story as far as we got yesterday?
- "Predict what will happen."	- "What prediction can you make about what is going to happen?"

2. Each question was listened to on the original recording to see whether time was allowed for a student's response. If, in the opinion of the researcher, no opportunity was given, this was treated as a rhetorical question and thereby dismissed from further analysis.

However, similar items frequently occurred in a sequence or "multiple question" (MQ) form. Where no intentional pause could be discerned within the sequence, it was coded collectively as a single question. For example:

Teacher: ["Child's name, what do you think?] (No pause) [Why did grandfather talk like this?] (No pause) [Is he angry at the boy?] (No pause) [Is he trying to scare him?] (No pause) [What do you think?"]

In order to categorize the instructional intent of a multiple question sequence, the final question was chosen as the predominant indicator, unless there was clear evidence to the contrary. The decision was based on the observation that students' responses reflected primarily the ultimate question in these sequences throughout the study.

3. Questions potentially fulfilling either of the study's definitions of Comprehension Assessment (CA) or Comprehension Instruction (CI) were tentatively identified.

Recognition of Comprehension Assessment (CA) questions provided little difficulty as long as the researcher perceived behaviors in agreement with answers to one or more of the following "decision facilitators":

a) Is the teacher checking on whether what was read was comprehended? (YES)

b) Are students perceived as having to "guess what is in the teacher's head"? (YES)

c) Does the teacher do anything instructionally with students' answers other than to indicate that they are right or wrong? (NO)

d) Is the question (or sequence of questions) perceived as "mentioning", that is, conveying just enough about a topic to allow for an assignment on it? (YES)

Comprehension Instruction (CI) type questions proved more difficult to identify. The initial decision facilitator given below had to be answered in the affirmative before any further analysis could be carried out as to the nature of the instruction conveyed by the question (or sequence of questions):

a) Is there transfer value perceived in the question (or sequence of questions) which will likely assist students to understand connected text other than that used in the immediate instruction? (YES)

OR b) Are students enabled to become more thoughtful, independent readers by virtue of this question or sequence of questions? (YES)

4. The nature of Comprehension Instruction (CI) questions (or sequences) was coded according to the following four categories as defined within the study. Decision facilitators used in the interpretation of definitions are listed for each of the categories:

Vocabulary Development (Vd):

a) Is the teacher's question (or sequence of questions) perceived to be attempting to resolve the question: "What is it that students do know that is enough like the new word or concept so that I can use it as an anchor point?" (Pearson, 1985, p.729) (YES)

OR b) Does the teacher's question (or sequence of questions) enable the student(s) to know what a word is like and how it is different from other words that are already known? (YES)

OR c) Has the teacher's question (or sequence of questions) increased the likelihood that a word or concept will be understood by students when they read different texts? (YES)

OR d) Is the teacher's question (or sequence of questions) encouraging students to acquire meaning for new vocabulary from context? (YES)

OR e) Does the teacher's question (or sequence of questions) draw students' attention to morphemic knowledge as a means of helping to understand a phrase or more? (YES)

Schema Development (Sd):

a) Does the teacher's question (or sequence of questions) encourage students to predict or elaborate from prior experiences in relation to the text? (YES)

b) Is the question (or sequence of questions) assisting students to develop schemata for the ways stories or expository texts are organized? (YES)

Focusing Question-Narrowing (Fn):

a) Does the teacher re-cast a question, requesting a smaller part of a larger issue, in order to aid a student's response? (YES)

b) Is the teacher's question changed from a recall to a recognition (multiple choice) mode, in order to aid a student's response? (YES)

Focusing Question-Directing (Fd):

a) Does the teacher's question direct students to a particular part of the text in order to elicit an inferential, rather than factual response? (YES)

Clarifying Question Clar):

a) Does the teacher's question seek further information from students to clarify what is perceived as a vague or ambiguous response? (YES)

5. All Comprehension Instruction (CI) questions were further categorized according to the following possible sources of data used by students in generating a particular response:

Textually Explicit 1 (TE1) - a question requiring a specific response explicitly stated in a single sentence of the text, that is, "...reading the line." (Pearson & Johnson, 1978)

Textually Explicit 2 (TE2) - a question requiring students to combine information explicitly stated in more than one sentence of text, that is, "...drawing together the lines." (Fagan unpublished manuscript, 1985)

Textually Implicit (TI) - a question requiring students to make at least one step of logical or pragmatic inferring to get to the response, and both question and response are derived from the text, that is, "...reading between the lines." (Pearson & Johnson, 1978)

Scriptally Implicit (SI) - a text derived question requiring students to respond only from their prior knowledge. The data source is in the respondent's head, not within the text, that is, "...reading beyond the lines." (Pearson & Johnson, 1978)

6. Questions and directive statements not coded as either Comprehension Instruction (CI) or Comprehension Assessment (CA), were categorized as Non-Instructional (NI). This included procedural questions to organize lessons, prepare for transitions and for routine matters, together with behavioral questions serving to control unacceptable student behaviors.

7. The total number of questions for each coding category was tallied and their collective total checked against the total number of questions for the transcript. Percentages required by

Research Questions 1-5 were hand calculated.

8. The researcher's reliability in coding question categories was checked by a university professor experienced in reading research. A single transcript containing 175 questions (12.9 percent of the study's total) was independently analyzed. There was 98 percent agreement between rater and researcher for Comprehension Instruction versus Comprehension Assessment questions, and 98 percent agreement for Comprehension Instruction sub-categories.

Research Questions 6-10:

Data obtained through collection procedures was too limited for any form of analysis other than the researcher's subjective interpretations. These will be reported in anecdotal form, using descriptive examples where possible. The source of data for each resource question is as follows:

Question 6 - transcripts and associated field notes

Question 7 - field notes

Question 8 - Teacher's Professional Data form, (sections I and II)

Question 9 - Teacher's Professional Data form, (section III)

Question 10 - field notes

SUMMARY

This chapter has described the design of the study including the subject selection instrument, piloting effective audio-taping procedures, selecting the sample, data collection and analysis.

Chapter 4 presents the findings of the study and discusses these results.

Chapter 4

THE FINDINGS OF THE STUDY

This chapter reports the descriptive findings of the study, relating them to the research questions given in Chapter 1. They are presented in the following manner.

First, each research question is restated. Second, explicatory data is provided for each question. Third, results are discussed in relation to the similarities and differences between the two groups of subjects under study. A summary concludes the chapter.

DESCRIPTIVE DATA - QUESTIONS

Question 1

Do grade five Skills/Eclectic and Whole Language teachers differ in the proportion of Comprehension Instruction questions to total number of questions asked during regular reading comprehension instruction?

(The data on which the answers to this question are based is given in Table 4.1)

A total number of 1357 questions was asked by the six teachers in the twelve observed lessons. Total number of questions asked by Whole Language subjects was 19 percent more than Skills/Eclectic subjects. A comparison of group performances indicated that the proportion of comprehension instruction questions was 6 percent for Skills/Eclectic subjects and approximately twice as many (11 percent)

Table 4.1

Total Numbers and Mean Percentages of
Comprehension Instruction, Comprehension Assessment and Non-Instructional Questions
asked by Skills/Eclectic and Whole Language Subjects

TEACHER	Taping Session	COMPREHENSION INSTRUCTION QUESTIONS (CI) Clar (Cl)	Foc (Fn)+(Fd)	Schem Dev(Sd)	Vocab Dev(Vd)	C.I. TOTALS N & (%)	COMPREHENSION ASSESSMENT QUESTIONS(CA)	CI+CA TOTALS N & (%)	NON-INSTRUCTIONAL QUESTIONS (NI) (Proced., Behav. etc.	CI+CA+NI TOTALS N & (%)
SKILLS ECLECTIC 1	a)	1	-	-	1	2(1.84)	52(47.70)	54(49.54)	55(50.46)	161 (100%)
	b)	-	-	-	-	- -	37(71.15)	37(71.15)	15(28.85)	
SKILLS ECLECTIC 2	a)	2	4	4	5	15(12.10)	71(57.25)	86(69.35)	38(30.65)	246 (100%)
	b)	-	3	-	-	3(2.46)	48(39.34)	51(41.80)	71(58.20)	
SKILLS ECLECTIC 3	a)	-	2	6	1	9(10.59)	58(68.23)	67(78.82)	18(21.18)	214 (100%)
	b)	2	2	5	-	9(6.98)	82(63.56)	91(70.54)	38(29.46)	
TOTALS: N & (%)		5 (.81)	11(1.76)	15(2.42)	7(1.13)	38(6.12)	348(56.04)	386(62.16)	235(37.84)	621 (100%)
WHOLE LANG. 1	a)	2	7	5	2	16(10.81)	81(54.73)	97(65.54)	51(34.46)	277 (100%)
	b)	4	5	1	-	10(7.75)	101(78.30)	111(86.05)	18(13.95)	
WHOLE LANG. 2	a)	2	5	5	2	14(8.00)	93(53.14)	107(61.14)	68(38.86)	277 (100%)
	b)	8	5	6	-	19(18.62)	22(21.57)	41(40.19)	61(59.81)	
WHOLE LANG. 3	a)	4	5	6	-	15(16.85)	57(64.04)	72(80.89)	17(19.11)	182 (100%)
	b)	1	4	5	-	10(10.75)	68(73.12)	78(83.87)	15(16.13)	
TOTALS: N & (%)		21(2.85)	31(4.21)	28(3.80)	4(.54)	84(11.40)	422(57.34)	506(68.75)	230(31.25)	736 (100%)
STUDY TOTALS: N & (%)		26(1.91)	42(3.10)	43(3.17)	11(0.81)	122(8.99)	770(56.74)	892(65.73)	465(34.27)	1357 (100%)

for Whole Language subjects. The proportion of comprehension instruction questions asked by individual subjects in relation to their group totals, ranged from a low of 1 percent (Skills/Eclectic subject) to a high of 14 per cent (Whole Language subject). All three Whole Language subjects exceeded the proportion of comprehension instruction questions asked by the highest performing Skills/Eclectic subject.

Whole Language subjects, therefore, appear to show a small but consistently higher performance in comprehension instruction questioning as compared to Skills/Eclectic subjects. However, the major conclusion is that very limited comprehension instruction is being carried out by subjects, either as groups or as individuals, regardless of their orientation.

Since aspects of both Durkin's (1978) and Hodges' (1980) coding categories have been accommodated within the present study, it is not unexpected that in comparison with the results of these studies, the proportion of comprehension instruction questions asked by all subjects (9 percent), lies between the respective findings of those researchers, i.e. 1 percent and 25 percent. This is a gross comparison, however, as both Durkin and Hodges reported their findings in minutes for comprehension instruction behaviors including, but not exclusively based on, teachers' questions.

Question 2

Do grade five Skills Eclectic and Whole Language teachers differ in the proportion of Comprehension Assessment questions to total

number of questions asked during regular reading comprehension instruction?

The mean proportion of comprehension assessment questions to total number of questions asked within the study was 57 percent (see Table 4.1). The same proportion was reflected by each group (Skills/Eclectic 56 percent; Whole Language 57 percent), despite Whole Language subjects asking 21 percent more assessment questions than the Skills/Eclectic group. For individual subjects, the proportion of assessment questions to total number of questions asked by their respective groups, ranged from a low 42 percent to a high of 69 percent. Both the highest and lowest percentages were achieved by Whole Language teachers. Skills/Eclectic subjects exhibited a more modest range with a low of 48 percent and a high of 65 percent.

The major conclusion is that just over half of all types of questions asked within the study were coded as teachers assessing whether what was read was comprehended by students. Both Skills/Eclectic and Whole Language groups closely reflected this finding.

Durkin's (1978) and Hodges' (1980) data indicate the same heavy emphasis on comprehension assessment by teachers, in relation to other instructional behaviors. However, despite differences in coding categories between the studies, there appears to be an even greater emphasis on assessment within the present study. This indicates that subjects recommended as competent teachers, equate at least tacitly, comprehension assessment with comprehension instruction, regardless of theoretical orientation towards reading.

Question 3

Do grade five Skills/Eclectic and Whole Language teachers differ in the proportion of Comprehension Instruction questions to Comprehension Assessment questions during regular reading comprehension instruction?

The mean proportion of comprehension instruction to assessment type questions for both groups in the study was 14 percent (see Table 4.1). Analysis of group performances indicated proportions of 10 percent for Skills/Eclectic and 17 percent for Whole Language subjects. Proportions for individual subjects ranged from a low of 2 percent (Skills/Eclectic subject) to a high of 22 percent (Whole Language subject). The four middle range subjects, however, performed similarly to one another, asking assessment over instruction type questions in the ratio of approximately 8 to 1. All three Whole Language subjects met or exceeded the highest proportion of comprehension instruction questions asked by a Skills/Eclectic subject.

The major finding is that comprehension assessment questions were asked approximately 8 times more frequently than comprehension instruction questions within the study. In general, Whole Language subjects asked more comprehension instruction questions than Skills/Eclectic subjects, both as a group and as individuals.

Durkin's (1978) "best teachers" were observed to exhibit comprehension assessment to instructional type behaviors in the ratio of 25 to 1. This falls midway between the outlying ratios of 45 to 1 (Skills/Eclectic subject) and 4 to 1 (Whole Language subject) produced within the present study. Since subjects in both studies were perceived by administrators to be very competent teachers, this raises some concern

as to what the ratios might be for the majority of teachers who are likely less competent. Although all Whole Language subjects showed performances of approximately 8 to 1 in comparison to Durkin's ratio, similar performances were also shown by two Skills/Eclectic subjects. This suggests that a higher ratio of comprehension instruction questioning cannot be accounted for completely by a Whole Language theoretical orientation to reading.

Question 4

What is the nature of Comprehension Instruction questions asked by grade five Skills/Eclectic and Whole Language teachers during regular reading comprehension instruction?

The functions of questions coded as comprehension instruction within the study, in order of priority and in terms of mean percentages were: Schema Development (35 percent), Focusing (35 percent), Clarification (21 percent) and Vocabulary Development (9 percent) (see Figure 4.1 and/or Table 4.1).

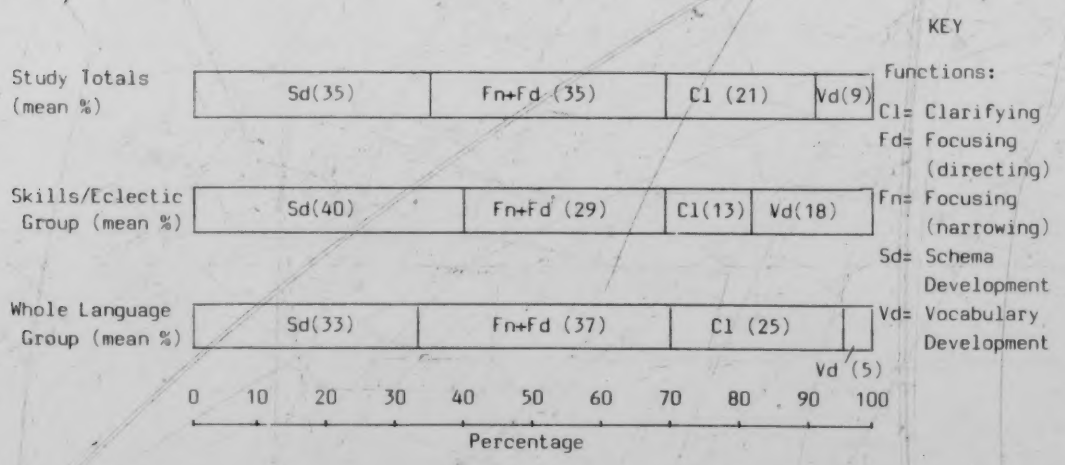

Figure 4.1

Functions of Comprehension Instruction Questions Asked by Skills and Whole Language Subjects

Whole Language subjects as a group closely approximated the study's overall pattern except for less attention given to Vocabulary Development. Both groups emphasized Schema Development and Focusing questions, with these combined category totals equalling 70 percent of questions asked within each group. The Skills/Eclectic group differed, however, in that it favored Vocabulary Development (18 percent) over Clarifying questions (13 percent), in contrast with 5 percent and 25 percent respectively, for the Whole Language group.

Each Whole Language subject approximated the pattern of questioning exhibited by that group as a whole. This may be described as a relatively equal emphasis on Schema Development, Focusing and Clarifying questions with very limited attention given to Vocabulary Development across specific subjects within this group. Two Skills/Eclectic subjects grossly approximated the pattern of their group by giving priority to Schema Development and/or Focusing questions. This was followed by a lower, more balanced emphasis on Clarifying and Vocabulary Development questions as compared to Whole Language subjects. The other Skills/Eclectic subject's performance was atypical for this group and could not be interpreted since only two questions were coded as comprehension instruction out of the group's total of thirty-eight questions.

The above levels of analyses suggest the following conclusions:

1. Regardless of theoretical orientation, both groups were similar in that they emphasized Schema Development and Focusing questions over other forms of comprehension instruction questions. Within this concentration, Whole Language subjects paid similar

attention to both categories while Skills/Eclectic subjects favored the Schema Development form of question.

2. Whole Language subjects emphasized Clarifying questions almost to the same degree as Schema Development and Focusing questions. This group, however, gave limited attention to Vocabulary Development questions.

3. Skills/Eclectic subjects, in contrast, asked a noticeably higher proportion of Vocabulary Development questions, achieving a relative balance with Clarifying questions in doing so. However, both categories were subordinate to the emphases on Schema Development and Focusing.

The emphasis on Schema Development questions by Whole Language subjects was not unexpected given the instructional emphasis on meaningful predictions by conceptually driven reading models associated with this theoretical orientation. However, an even greater proportion of Schema Development questions for Skills/Eclectic subjects, was not expected, since the processing of low-level text units is theorized to be the instructional priority in "bottom-up" processing models.

A re-examination of transcript data indicated a possible explanation for this anomaly. Teachers' Schema Development questions, as defined by the study, involved invoking students' predictions and elaborations from prior experiences in relation to the text. Tentative differences between the two theoretical orientations only became apparent when the discourse sequences surrounding individual Schema Development questions were examined. Whole Language subjects tended to invoke a student's prior knowledge directly from text, or failing that, to make direct association with it afterwards. In contrast, although

Skills/Eclectic subjects activated students' schemata, they tended to do this in isolation from the text. This conveyed the impression that students would make "obvious" connections for themselves.

Focusing questions, emphasized by both theoretical orientations, indicated group related differences when subdivided into the two functions defined within the study, that is "narrowing" and "directing". The former refers to the "narrowing" of a larger issue contained within a teacher's previous question in order to aid a student's response. The latter "directs" students to a particular part of text in order to enhance a student's response.

For Skills/Eclectic subjects the emphasis was on "narrowing". This indicates the sensitivity to perceive a student's difficulty and the tenacity and expertise to "slice" it (Pearson & Johnson, 1978) into manageable, ego-preserving proportions. However, an analysis of discourse sequences surrounding this category (for both groups) revealed little attempt to rebuild discrete "slices" into meaningful knowledge. Again, the subjects appeared to believe these connections could and would be made by the students.

In contrast, the function of Focusing questions emphasized by Whole Language subjects was to direct students to specific parts of text in an explicit attempt to raise the degree of text related inferencing. This appeared to demonstrate to students the importance of a careful, critical re-examination of text for language and author cues as a self instructional strategy for more meaningful reading. The transcripts also provided examples where subjects appeared concerned to relate students' scriptally based inferences to the specific structure and cues provided by the text. This may be further

interpreted as implicit or explicit attempts by Whole Language subjects to regress the cursory, "gist" form of reading associated with an over-reliance on "top-down" information processing instruction.

Clarifying questions received almost as much emphasis by Whole Language subjects as Schema Development and Focusing ("directing") questions. This probing form of question seeks to clarify what is perceived as a vague or ambiguous response on the part of a student. The ultimate benefits are thought to be the clarifications of misconceptions in students' schemata or inconsistencies in reasoning. Since Whole Language subjects placed twice as much emphasis on Clarifying questions as compared to Skills/Eclectic subjects, this suggests an instructional concern related to a Whole Language theoretical orientation and its assumed use of concept-driven, "top-down" models of information processing.

An unexpected finding for the study was the very limited attention (5 percent) paid to Vocabulary Development questions by Whole Language subjects. Skills/Eclectic subjects, in contrast, appeared to emphasize this form of question three to four times as much as Whole Language subjects. As defined, the important criterion that had to be perceived in these questions was the "building of bridges" between a new word or concept and what was already known by the student(s). A re-examination of the data indicated that of the eleven questions coded as Vocabulary Development within the whole study, five questions had been asked by one Skills/Eclectic subject. This teacher had received Honors undergraduate degree training in Romance Languages. This greatly facilitated the understanding of culturally specific terms arising from a story about Mexico used within the tapings. Two students with similar

ethnic backgrounds to the story setting were encouraged to provide an enthusiastic "building of bridges" between cultures. If this teacher's contribution is removed from the data, there is very little difference between the two groups. This causes the researcher to conclude that there was little Vocabulary Development questioning being carried out by subjects, as defined within the study, regardless of their theoretical orientation.

Question 5

a) Do grade five Skills/Eclectic and Whole Language teachers differ in the proportion of text-explicit (factual) Comprehension Instruction questions asked during regular reading comprehension instruction?

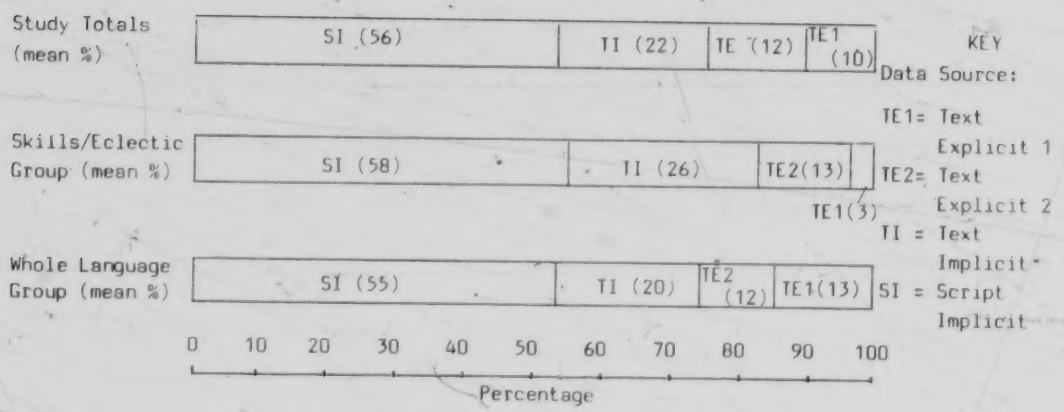

Figure 4.2

Data Source Required by Students in
Responding to Subjects' Comprehension Instruction Questions

The proportion of Comprehension Instruction questions requiring students to give a response stated explicitly in a single text sentence, was 3 percent for Skills/Eclectic subjects and a relatively unexpected 13 percent for Whole Language subjects (see Figure 4.2) and/or Table 4.2). Given the fact that all questions were coded as Comprehension Instruction, the expectation was that very little emphasis would be placed on literal information by either group. Moreover, if this was to be accessed it was thought more likely to be carried out by Skills/Eclectic subjects because of their theoretical orientation's association with "bottom-up" processing models. An analysis of the functions of questions coded as Text Explicit 1 (see Table 4.3) indicated that Focusing ("directing") accounted for this emphasis by Whole Language subjects.

A second category by Fagan (unpublished manuscript, 1985) was added to Pearson & Johnson's (1978) "Textually Explicit" classification. The new Text Explicit 2 category requires a greater degree of cognitive manipulation as it ask for the synthesis of information specific to the text from more than one sentence. Both Skills/Eclectic and Whole Language subjects asked the same proportion (12 to 13 percent) of their group totals (see Figure 4.2 and/or Table 4.2). However, the functions of questions emphasized by each group within this category appeared to be different. Whole Language subjects again emphasized the Focusing ("directing") function whereas Skills/Eclectic subjects appeared to give some acknowledgement to the function of Vocabulary Development within this category.

Table 4.2

Total Numbers and Mean Percentages of Comprehension Instruction Questions Classified According to Data Source Required for Students' Responses

TEACHER	SESSION	TEXT EXPLICIT 1 (TE1)	TEXT EXPLICIT 2 (TE2)	TEXT IMPLICIT (TI)	SCRIPT IMPLICIT (SI)	TOTALS (N)
SKILLS ECLECTIC 1	a)	1	1	-	-	2
	b)	-	-	-	-	0
SKILLS ECLECTIC 2	a)	-	3	3	9	15
	b)	-	-	3	-	3
SKILLS ECLECTIC 3	a)	-	1	1	7	9
	b)	-	-	3	6	9
TOTALS: N & (%)		1 (2.63)	5 (13.16)	10 (26.32)	22 (57.89)	38 (100%)
WHOLE LANGUAGE 1	a)	4	4	4	4	16
	b)	1	4	-	5	10
WHOLE LANGUAGE 2	a)	1	1	4	8	14
	b)	-	-	6	13	19
WHOLE LANGUAGE 3	a)	3	-	3	9	15
	b)	2	1	-	7	10
TOTALS: N & (%)		11 (13.10)	10 (11.90)	17 (20.24)	46 (54.76)	84 (100%)
STUDY TOTALS: N & (%)		12 (9.84)	15 (12.29)	27 (22.13)	68 (55.74)	122 (100%)

Question 5

b) Do grade five Skills/Eclectic and Whole Language teachers differ in the proportion of text-implicit (inferential) Comprehension Instruction questions asked during regular reading comprehension instruction?

The proportions of text constrained inferencing required by the Comprehension Instruction questions for both groups appear to be similar (Skills/Eclectic subjects 26 percent; Whole Language subjects 20 percent) (see Figure 4.2 and/or Table 4.2). Again, however, the functions of questions emphasized within this classification were different for each group (see Table 4.3). Skills/Eclectic subjects apparently needed to resort to the recasting of questions (Focusing - "narrowing") in order to assist students with inferencing from text. Whole Language subjects appeared more concerned with re-directing students to text to aid their inferencing (Focusing - "directing"), and with clarifying their inferences by the use of text when there were inconsistencies in reasoning or misconceptions in schemata (Clarifying).

Question 5

c) Do grade five Skills/Eclectic and Whole Language teachers differ in the proportion of scriptal (students answer from their background knowledge) Comprehension Instruction questions asked during regular reading comprehension instruction?

The overwhelming proportion of Comprehension Instruction questions for both groups (55 to 58 percent) required students to answer text derived questions from their prior experiences (see Table 4.2). This category was coded if the researcher perceived within a student's

Table 4.3

Data Source of Students' Responses as Related to
Functions of Comprehension Instruction Questions Asked by
Skills/Eclectic and Whole Language Subjects

	TEXT EXPLICIT 1 (TE1)					TEXT EXPLICIT 2 (TE2)					TEXT IMPLICIT (TI)					SCRIPT IMPLICIT (SI)					
TEACHER	Cl	Fd	Fn	Sd	Vd	Cl	Fd	Fn	Sd	Vd	Cl	Fd	Fn	Sd	Vd	Cl	Fd	Fn	Sd	Vd	TOTAL (N)
SKILLS/ECL. 1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
SKILLS/ECL. 2	-	-	-	-	-	-	1	1	-	1	1	1	2	1	1	1	-	2	3	3	18
SKILLS/ECL. 3	-	-	-	-	-	-	-	-	-	1	1	-	2	1	-	1	-	2	10	-	18
TOTALS: (N)	1	-	-	-	-	-	1	1	-	3	2	1	4	2	1	2	-	4	13	3	38
WHOLE LANG. 1	1	3	-	-	1	1	6	1	-	-	1	1	-	1	1	3	-	1	5	-	26
WHOLE LANG. 2	-	-	1	-	-	-	1	-	-	-	4	2	2	-	2	6	-	4	11	-	33
WHOLE LANG. 3	-	5	-	-	-	-	1	-	-	-	1	2	-	-	-	4	-	1	11	-	25
TOTALS: (N)	1	8	1	-	1	1	8	1	-	-	6	5	2	1	3	13	-	6	27	-	84
STUDY TOTALS: (N)	2	8	1	-	1	1	9	2	-	3	8	6	6	3	4	15	-	10	40	3	122

KEY

Functions of Comprehension Instruction Questions

Cl = Clarifying
Fd = Focusing ("directing")
Fn = Focusing ("narrowing")
Sd = Schema Development
Vd = Vocabulary Development

response the slightest possibility that a segment of text had been processed through his/her mental store.

Given the above finding it was not unexpected that the major function of Comprehension Instruction questions for both groups was Schema Development (see Table 4.3). However, a major concern arising from these findings is the heavy reliance on students' prior knowledge during instruction that may be constrained by text.

DESCRIPTIVE DATA - OTHER TEACHING BEHAVIORS

Question 6

Are there differences in the types of reading skills emphasized in reading comprehension instruction by grade five Skills/Eclectic and Whole Language teachers?

Data sources for this subjective analysis were the researcher's field notes made at the time of the recordings, and the transcripts. For reporting convenience, reading skills are grouped into the following four categories:

1. Text-Level Comprehension Activities

a) Story-Schema: Two Skills/Eclectic and two Whole Language subjects acknowledged to varying degrees the importance of making students aware of story schema. One Skills/Eclectic subject described the organization of story as being either a "linear" or "circular" journey. A second Skills/Eclectic subject likened it to climbing a mountain with "precipices" delineating stages and precipitating decisions. Both Whole Language subjects made use of a story grammar worksheet "grid" and associated terminology (setting, initiating event, outcome etc.) to

facilitate students' understanding of story organization. In one situation the grid was completed by individual students as they silently read a chapter from a trade book. Written questions and answers were composed by each student according to what s/he perceived to be the important aspects of the chapter. These questions would then be used in partner or group discussions where written answers could be compared to peers' responses. The same teacher also appeared to use the grid as a class review of reading done independently by students. In a second situation, the subject completed part of a blackboard grid as she received suggestions from students in response to her oral reading from a text. The rest of the story was completed by individual students reading silently to determine the next important event on the grid. This same approach was used in small group silent reading where the subject frequently asked for predictions as to possible problems, solutions and outcomes. However, there appeared to be some aversion on the part of students when asked to read with a particular problem to solve in mind.

b) Scanning: One Whole Language subject encouraged students to "scan" to find a setting for an episode in a chapter of a novel. Students were to write this down in their notebooks and to discuss their choice with a neighbour. Any disagreements were to be referred back to clues in the text. No "skimming" for general impressions of a text was evident in any of the lessons.

c) Integrating: A single Skills/Eclectic subject provided time for a students' dramatization of a Unit story from a prescribed text, read prior to the recordings. The students' actions and props provided opportunities for originality, but the dialogue between characters

and the words used by a story-teller, were determined by the exact wording of the story. However, the students' enjoyment was very evident, as was their general understanding of the story.

2. Word- and Sentence-Level Comprehension Activities

One Skills/Eclectic subject and all Whole Language subjects provided examples of the use of context to arrive at the meaning of specific parts of text.

In the few instances observed where Whole Language subjects attended to individual words they appeared to focus attention on associative word meanings derived from the context of text. For example, one teacher working with a group of below average readers, encouraged them to read a passage silently, noting any words they did not understand to bring up in discussion afterwards. Difficulty with the word "easel" was dealt with by asking for the specific sentence in which the word occurred to be read out loud to the group, together with any other "clues" available from surrounding sentences. Discussion reduced the possibilities to a stand or support of some kind. Only then did the subject refer students to the dictionary's definitions. Of those provided, students chose the one most appropriate to the text situation. The teacher made an informal evaluation by asking students to locate an easel in the room.

A second situation involved a focus on two different examples of individual words. During a teacher's reading of text displayed on an overhead projector, students were encouraged to predict blanked out words ("cloze" procedure) on the basis of context and personal background knowledge. Discussion and acceptance of reasonable answers was very evident.

Within the latter activity, there were also two instances where

anaphoric relationships received attention. For example, the subject read the following sentence from text, "...Now the surprising thing about it is this...", and initiated discussion with the subsequent question, "What do you think IT refers to?" However, at the end of the session when the researcher asked how she had become aware of anaphoric relationships, the teacher was unfamiliar with the term. She appeared to focus on this form of difficulty largely through her own intuitions.

Two Skills/Eclectic subjects provided extensive verbal commentaries on what they perceived to be the intricacies of the text, with the apparent purpose of simplifying the cognitive load for students. This left little time for interaction with students beyond a quickly executed literal form of questioning.

3. Word Recognition Activities

No examples were seen of phonics or decoding activities. The single example of structural analysis was provided by a Skills/Eclectic subject when she associated the word "fascinated" with the root "fascine".

Two Skills/Eclectic subjects focused on the denotive meanings of unknown words by referring students to dictionary definitions. One required this as preparation for students writing their own sentences to demonstrate meaning; the other did this to "cover" new vocabulary words specified by the Teacher's Guidebook in preparation for a reading from the basal text. Both of these subjects mentioned primary and secondary accent marks; both asked students to identify, "What part of speech is it?" The subject introducing new vocabulary words asked individual students for their definitions. These were confirmed, referred to a dictionary, or the teacher provided her version.

Unfortunately, dictionaries provide several definitions to cover all contexts. No context had been provided at this point in the lesson, neither had students been able to see how the word in question was similar to, yet also different from, words already known to them.

The subject's definitions were also perceived to create difficulties because of their adult perspective. For example the term "self sufficient" was partly described in terms of countries being forced into this condition by being unable to secure trading partners. Even the injection of adult humor had the potential to provide difficulties for students when developing their schemata, particularly with below average readers. For example, a Skills/Eclectic subject dealing with the vocabulary word "kidnapped", added the possibly misleading dimension that teachers "kidnap" students in the sense that they "...keep people against their will". The good intentions of subjects in both cases were undeniable. However, these examples may illustrate the weaknesses of the "spontaneous" teacher centred approach in facilitating students' "ownership" of a word/concept for situations beyond the immediate instructional setting.

In contrast to Skills/Eclectic subjects' use of dictionaries, a single Whole Language subject used them as a subordinate, confirmational tool for students' predictions, as illustrated in the following example. A student shared a piece of writing with a friend and her teacher. It contained the sentence: "Angle is my family's buje". When the friend pointed out the correct spelling of "Angel" the teacher commiserated with the writer pointing out that she had difficulties with it too. The teacher, however, did not acknowledge the incorrect spelling of "budgie" until the writer asked her how to spell it. At that point

the approach taken was, "How do you suggest?" The next suggestion was the possibility of a silent letter but the specific letter and its location were to be decided by the student. Finally, the student was referred to the dictionary, "...just to be sure" of her personal spelling.

Two Skills/Eclectic subjects corrected students' oral reading miscues immediately, or, where there was hesitation, promptly supplied the word. Curiously, one of these subjects encouraged students to predict new words using an oral "cloze" procedure when she was reading out loud.

4. Stylistic Conventions

A concern for stylistic conventions of written language was observed in one Skills/Eclectic classroom during the completion of a reading assignment worksheet. During this activity the teacher brought to students' attention their letter formations, pencil grip, word spacing, capitalization, punctuation and "correct format" they should use in submitting written answers for subsequent evaluation.

In summary, there was limited evidence of reading skills being emphasized by either theoretical orientation. However, those observed did suggest an instructional focus on the denotive meanings of words in isolation from text by Skills/Eclectic subjects, whereas Whole Language subjects focused on the associative meanings of words within sentences, together with story organization. In addition, Skills/Eclectic subjects tended to provide immediately the appropriate text word for a student's miscue or hesitation in oral reading.

Question 7

Are there differences in the choice of instructional materials and audio-visual/electronic aids between grade five Skills/ Eclectic and Whole Language teachers?

The data source for this analysis was the researcher's field notes made during the audio taping.

Instructional Materials

All Skills/Eclectic and two Whole Language subjects were observed using their provincial department of education's prescribed reading texts. Starting Points in Reading: (Book b) (Ginn) was used in Skills/Eclectic situations while both Whole Language subjects used the Sounds of Language Program - "Sounds of a Distant Drum", (Holt).

However, the degree of adherence to Teacher's Guidebook suggestions varied widely between subjects regardless of theoretical orientation. The impression received was that teachers took those suggestions that were perceived to be implementable given the constraints of the instructional situation. For example, one Skills/ Eclectic subject followed the "pre-reading" and "during reading" Guidebook suggestions almost to the letter. This included referral to her daily plan book whenever there was a break in an activity. However, recommended "post-reading", inference seeking questions for oral discussion were transposed into a written worksheet assignment which students were informed would "...count towards your report". In a second Skills/Eclectic classroom, the impression was that the subject was teaching largely on the basis of past experience. The general intent of the Guidebook's unit suggestions could be perceived. However,

there was virtually no probing or inferencing type questioning apparent on the transcripts even though examples of these more cognitively demanding activities were provided in the Guidebook.

In one Whole Language situation, the subject appeared to adapt Martin's and Brogan's comments (Sounds of Language Program) about a particular story schema, to provide a tightly controlled plan of instruction for a group of bright but somewhat unruly students. It is highly unlikely these authors ever intended their comments for such a purpose. Moreoever, this teacher adhered to this preconceived structure for the duration of the lesson even though it appeared not to be achieving its purpose.

Three subjects were observed using reading materials in addition to prescribed texts. One Whole Language subject had apparently made extensive use of a children's novel, to facilitate her instruction in story grammar. During the recordings, she was also observed "selling" some of the more tempting aspects of a novel she had brought to school specifically for a student. The second observation was in a Skills/Eclectic classroom. Here the subject read from a self-chosen children's book that continued the theme of the previous day's recorded instruction based on a prescribed reader selection. Another Skills/Eclectic subject apparently read a part of a children's novel to her students daily. During the recordings it was read with very little comment either before, during, or after the reading.

Audiovisual Aids

The use of an overhead projector was seen in one Whole Language classroom. It was used to provide "cloze" predictions and controlled exposure of story events for a passage selected from the Sounds of

Language Program. Somewhat unexpectedly, the blackboard was observed to be used only once by subjects. This was in a Skills/Eclectic classroom where new vocabulary words had been written on the board the previous evening in preparation for the recording session.

Electronic Hardware

Students were observed using a micro-computer in two Whole Language classrooms and an electric typewriter in the other Whole Language situation. In every instance, this electronic hardware was being used as aids to students' personal writing. Writing was evidently perceived as an important aspect of reading comprehension instruction by all Whole Language subjects, as evidenced by their choice to include it in all the recording sessions. Neither hardware of this nature, nor personal/creative writing was observed in any Skills/Eclectic classroom.

In summary, choice of instructional materials did not appear to differentiate between the two theoretical orientations under study, except for selection of prescribed texts with different underlying philosophies, and a use of the newest forms of electronic hardware by Whole Language subjects. A clearer differentiation was indicated by how subjects used instructional materials and aids, once chosen. In particular, all Whole Language subjects used such resources to encourage students' personal creative writing - apparently an important activity in reading comprehension instruction for this orientation.

Question 8

Are there differences in the general educational training background of grade five Skills/Eclectic and Whole Language teachers?

Professional background information on each of the subjects

was collected using the Teacher's Professional Data form (see Appendix C).

All subjects were experienced teachers with a range of from 6 to 17 years teaching. Experience at a grade 5 level varied from 1 to 6 years with an average of 4 years for each group. One Skills/Eclectic and all three Whole Language subjects had taught a series of earlier grade levels.

One subject had attained a B.Ed. degree. Three more had achieved B.A. degrees with an additional year of professional teacher training. The remaining subjects, one Skills/Eclectic and one Whole Language, each indicated 4 years of teachers' college and/or university level teacher training without a degree. Whole Language subjects and one Skills/Eclectic subject received all of their higher education from the University of Alberta. Two Skills/Eclectic subjects attended other universities, one within another Prairie province, and one in the Maritimes. Two subjects, one from each theoretical orientation, were increasing their qualifications by pursuing university level part-time courses in Language Arts.

Each subject reported a limited exposure to professional training in reading, usually as part of a course covering all elementary school subjects. Only two teachers (one of each theoretical orientation) reported a fourth year course in reading, with none indicated at the graduate level.

From the above findings, there is little indication of an association between the professional background of subjects and the theoretical orientation to reading they are assumed to represent. However, it was evident that all Whole Language subjects had taught a sequence of earlier grades. This raises the question as to whether

teaching experiences with students at the "learning to read" stage may have influenced a closer self-directed examination of the reading act on the part of Whole Language subjects?

Question 9

Are there differences in the major sources of ideas about reading between grade five Skills/Eclectic and Whole Language teachers?

The Teacher's Professional Data form (see Appendix C) was again the source of data for this analysis.

The influence of formal course work on their teaching of reading to date was reported as negligible by two Skills/Eclectic and two Whole Language subjects. Instead, the majority of subjects indicated the contributions of colleagues, and different forms of in-servicing, as major sources of their ideas as to how to teach reading.

Beyond these commonalities, there is some evidence to suggest that sources of influence are different for the two theoretical orientations. For example, all Skills/Eclectic subjects reported prescribed text Guidebooks as a major source of ideas, whereas Whole Language subjects did not.

Other major response differences appear to reflect the present intensity of exploration into personal instructional practices shown by each subject. For example, all Whole Language teachers reported specific workshops, books, authors and/or speakers they had profited from, but only a single author was indicated by Skills/Eclectic subjects. In addition, no Skills/Eclectic subject reported seeking out consultants as sources of ideas, whereas all Whole Language subjects did. Two of the latter group indicated the importance of upper

elementary "support groups" whereby interested teachers met voluntarily in each others homes for sharing of ideas and discussion to improve instruction. The same subjects further reported giving workshops to colleagues and informational presentations to public groups. No Skills/Eclectic subject reported these or similar practices.

Question 10

Are there differences in teacher characteristics between grade five Skills/Eclectic and Whole Language teachers?

The first observation given below was based on field notes made at the time of the recordings. Interpretations beyond that are based entirely on the persistent impressions remaining with the researcher subsequent to the recording sessions.

It was noted that three subjects (two Skills/Eclectic and one Whole Language) requested the researcher's opinion as to the appropriateness of their proposed lessons prior to recording. Moreover, this behavior was repeated with regard to what tapes should be analyzed at the conclusion of taping.

This apparent lack of confidence could also be interpreted as being present in other behaviors within the study, particularly with Skills/Eclectic subjects. For example, with one exception each transcript of all Skills/Eclectic subjects was longer in terms of typewritten pages than any of the Whole Language subjects. At the same time, the latter group, on an average, asked more questions of students. This higher incidence of interaction with students by Whole Language subjects suggested that they were slightly more inclined to entertain the unexpected, and to digress from original lesson planning should

students' responses suggest the need. A re-examination of transcripts left the researcher with the impression that Skills/Eclectic subjects used much of their verbal discourse to simplify or elaborate on the content of text. At the same time this discourse "monopoly" enabled a locus of control firmly in the hands of the teacher. In the single instance where a Skills/Eclectic subject's transcript did not exceed that of Whole Language subjects, teacher chosen listening activities were substituted. These included reading part of a children's novel and listening to a phonograph record. Neither activity resulted in any substantive discussion with students, suggesting that they may have been another implicit means of reducing the possibility of the unexpected during the recording session.

Whole Language subjects, in contrast, frequently encouraged students to express their opinions and particularly their feelings in the course of the recordings. This so occupied one subject that she apologized later to the researcher for having covered so little of the text! Another Whole Language subject was also the only one within the study to exhibit intentional "wait time", indicating a belief that students' responses were important enough within the lesson to let silence prevail.

Two Whole Language subjects had surmounted the mystique associated with micro-computers, securing and making use of such hardware in their instruction. All three Whole Language subjects took the initiative in seeking consultants' support. Two of them had given informational presentations in public meetings and to colleagues. They also appeared willing to reveal their present instructional strengths and weaknesses to similarly minded individuals within the

upper elementary "support groups" to which they voluntarily belonged.

The researcher's overall impression was that Whole Language subjects had a higher level of self confidence and a greater curiosity about learning as compared with Skills/Eclectic subjects.

SUMMARY

In summary, Skills/Eclectic and Whole Language subjects appeared most similar in their heavy emphasis on comprehension assessment questions, the nature of comprehension instruction questions asked, the proportion of different data sources used in question-answer relationships, and their professional training and prior courses in reading.

Differences between theoretical orientations were evident in how comprehension instruction questions were executed; Whole Language subjects tended to relate students' schema development and comprehension difficulties directly to text, whereas Skills/Eclectic subjects did not. Other differences included choice of prescribed texts, use of electronic hardware, and the degree of professional involvement in such instructionally related activities as "support groups", professional reading, workshop and public presentations.

Chapter 5 provides a brief review of the study together with its main conclusions. The researcher's reflections on the study will be followed by implcations for instruction and recommendations for further research.

Chapter 5

SUMMARY, CONCLUSIONS, REFLECTIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

This chapter provides a brief summary of the study, its main findings and conclusions. The researcher's reflections on this study of teaching will follow. In conclusion, implications for instruction and recommendations for further research will be presented.

SUMMARY

The major purpose of the study was to investigate the relationship between the questioning characteristics evidenced within the regular reading comprehension instruction of teachers selected as exponents of Skills/Eclectic and Whole Language orientations to reading. A subject selection instrument was developed, which, together with administrators' and consultants' recommendations, was used to select the sample of five grade 5 teachers and one grade 4/5 teacher from a large urban centre. Three were chosen as exponents of a Skills/Eclectic theoretical orientation to reading, and three a Whole Language approach. Three audio recordings were made of each subject's regular classroom comprehension instruction in reading and each subject was asked to select the two tapes most typical of their instruction. These were transcribed for coding of questions and tabulation of results. Further data for analysis was obtained from field notes and a Teacher's Professional Data form. Hand calculation of proportional percentages was carried out for research questions 1-5, while subjective observations and impressions of

further teaching behaviors were reported for questions 6-10. After consideration of findings for each research question given in Chapter 4, the following conclusions appear justified.

CONCLUSIONS

1. Limited comprehension instruction was evident within subjects' questioning performances, regardless of theoretical orientation to reading.

Although Whole Language subjects asked twice as many comprehension instruction questions, in proportion to Skills/Eclectic subjects, this group's frequency of asking was only 1 in 10 of the total for all types of questions asked within the study. This finding was arrived at despite the study's attempts to broaden Durkin's (1978) definition of comprehension instruction, and to select exemplary teachers representative of the two theoretical orientations under study.

2. Subjects' heavy emphasis on comprehension assessment questioning, suggests they equate, at least tacitly, this form of activity with comprehension instruction, regardless of their theoretical orientation to reading.

Half of all questions asked within the study were coded as the teacher assessing whether what was read was comprehended by students. This high degree of emphasis on assessment was closely reflected by both Skills/Eclectic and Whole Language groups. Furthermore, it was displayed by subjects perceived as highly competent teachers by immediate administrators and/or consultants.

3. Whole Language subjects generally asked a higher proportion of comprehension instruction to assessment type questions as compared to Skills/Eclectic subjects.

Each Whole Language subject met or exceeded the highest proportion of comprehension instruction questions asked by each Skills/Eclectic subject. This suggests a relationship between comprehension instruction questions and a Whole Language orientation, which is assumed to make use of "top-down" models of reading emphasizing meaningful predictions.

4. Although both groups emphasized Schema Development and Focusing questions over other types of comprehension instruction questions, Whole Language subjects tended to relate them directly to text, but Skills/Eclectic subjects did not.

Students' schemata tended to be invoked directly from, or related back to, text by Whole Language subjects, whereas Skills/Eclectic subjects conveyed the impression that "obvious connections" with text would be made by the students. Focusing questions reflected the same tendency; Whole Language subjects focused students' attention explicitly on specific parts of text to raise text related inferencing, whereas Skills/Eclectic subjects emphasized the "slicing" of a complex question into manageable components to aid a student's response, not related directly to text.

5. Whole Language subjects appeared to place twice as much emphasis on clarifying misconceptions in students' schemata and/or inconsistencies in reasoning, as compared with Skills/Eclectic subjects.

This suggests that probing, clarifying forms of questioning are

related to a Whole Language theoretical orientation which assumes the use of "top-down" models of information processing.

6. Limited vocabulary development was evident within subjects' questioning behaviors, regardless of theoretical orientation to reading.

Explicit attempts to "build bridges" between new vocabulary and what students already knew, were apparent only in the discourse structures of a single Skills/Eclectic subject.

7. Students' background knowledge was the major source of data required by subjects when asking comprehension instruction type questions, regardless of their theoretical orientation.

Half of all comprehension instruction questions asked required this source of data. Whole Language subjects appeared the more concerned of the two theoretical orientations to add to students' existing schemata and to clarify whether or not students' answers from prior knowledge were constrained by text.

8. Both Skills/Eclectic and Whole Language groups were similar in the proportion of different data sources used in question-answer relationships.

9. Skills/Eclectic subjects tended to supply immediately the text word for students' oral reading miscues or hesitations, whereas Whole Language subjects encouraged the use of context in such situations.

10. In contrast to Skills/Eclectic subjects, all Whole Language subjects provided opportunities for students' creative writing during the recorded lessons, thereby implying that this activity was an integral part of reading comprehension instruction.

11. The prescribed department of education reading text used by all Skills/Eclectic subjects differed in underlying philosophy as compared to that used by the majority of Whole Language subjects.

Skills/Eclectic subjects chose Starting Points in Reading (Ginn) which claims to be an integrated Language Arts program providing specific suggestions for teaching in both decoding of graphic symbols and the reconstruction of meaning. In contrast, Whole Language subjects chose the less didactic, literary anthology contained in the Sounds of Language Program (Holt).

12. Whole Language subjects were observed using the newest forms of electronic hardware (mini-computers, electric typewriter) in their instruction, whereas Skills/Eclectic subjects did not appear to have these aids in their classrooms.

13. Both theoretical orientation groups were similar in professional training and prior courses in reading.

14. The majority of subjects in each group regarded contributions of colleagues and different forms of in-servicing as major sources of ideas about reading, whereas the influence of formal course work was reported as negligible.

In addition, all Skills/Eclectic subjects reported the teacher's guidebook as an important source of ideas, whereas Whole Language subjects did not mention it.

15. The degree of professional involvement in improving personal instructional practices, appeared greater with Whole Language subjects, as compared with Skills/Eclectic subjects.

The majority of Whole Language subjects reported involvement in "support groups", workshop and public presentations, and were able to name, without being forewarned by the researcher, specific workshops, books, authors and/or speakers they had profited from. Except for the provision of a single author, no Skills/Eclectic subject reported any of the above aspects of professional involvement.

16. Whole Language subjects generally appeared to have a higher level of self-confidence, than Skills/Eclectic subjects.

The greater self-confidence of Whole Language subjects was suggested by their willingness to reveal personal instructional weaknesses and present state of understanding to colleagues within "support groups", their familiarity with, and use of electronic hardware during instruction, and their willingness to encourage and accept the unexpected form of responses from students. In contrast, the majority of Skills/Eclectic subjects sought the researcher's opinions as to appropriateness of lesson plans for the recordings and which audio tapes to choose for data analysis. Their discourse structures also increased the likelihood of predictable students' responses.

REFLECTIONS ON A STUDY OF TEACHING

The following represent the largely intuitive, but persistent thoughts remaining with the researcher subsequent to the completion of the study's classroom recordings.

1. All teachers in the study appeared to have a business-like attitude towards instruction and well established classroom routines.

Lessons started on time with a minimum of urging and were conducted with few procedural and behavioral interruptions by students.

2. Interruptions originating external to the classroom were frequent. For example, eleven separate public address system anncuncements were counted in the course of seven of the recording sessions. During one taping, three of these were made in less than three minutes. The motives apparent for these and other forms of interruptions during the study, conveyed to the researcher the impression that uninterrupted instructional time was not being given the priority it deserved by those external to the classroom situation. Interruptions were observed to affect cumulative sequence forms of instruction such as the line of progression inherent in focusing and probing forms of questions, and in story grammar.

3. Teachers were consistent in that they followed up on what they had previously said to students they would do. For example, if a student was asked to think of a further response, or, to look up a particular word in a dictionary, while another verbal exchange was taking place, teachers always returned for these requested contributions.

4. All teachers made use of the "multiple question" form when eliciting responses from students. The researcher suggests these sequences may be examples of "wait-time" both for students and teachers. For the latter, it may be an opportunity to clarify their thinking aloud on an issue or, to decide on the most effective instructional strategy for a specific situation. If "multiple questions" are not examples of "wait-time" then only a single Whole Language subject provided evidence of an intentional delay to improve students' responses. For example,

she made the comment, "That's O.K. I'll wait until you've all had time to think." After approximately a two minute pause, she gave a further direction to students to hold up the number of fingers that equalled the number of settings they had individually been able to find within an episode. These choices were then discussed with a neighbor before the students were regrouped to provide a more enlivened, accurate class completion of a story grammar grid.

5. One of the difficulties of elementary teaching is the provision of small group instruction while simultaneously planning, evaluating and monitoring other students' activities within the room. Two subjects, having the largest class sizes in the study, provided instances where their discourse with students about specific parts of text was semantically inappropriate. However, students involved appeared to register the teacher's true intentions in both instances, rather than the specific surface structure used. These examples are raised, not as a criticism of these teachers, but as an illustration of the multi-faceted thought processes teachers have to engage in, and the superficial instruction that can so easily result from having to do so.

6. The majority of teachers in the study were perceived by the researcher to be extremely busy individuals, both in and out of the classroom. It was rare for the researcher to observe a subject having a complete recess without there being some school related responsibility to attend to.

7. One of the consequences of busy schedules is the lack of time either to critically pre-examine a particular story schema, or to make modifications if and when difficulties have been encountered. One

illustration of a troublesome schema arose in a story where an elderly woman had only a blanket full of holes to keep her warm in bed during the coming winter. Her solution was to buy some geese from which she could ultimately make a feather bed. One pragmatic student wondered why the money for the geese hadn't been used to buy blankets in the first place. Another raised the probability of the old woman being "boiling hot" next summer in her feather bed because of her actions!

8. Verbal transactions appeared to be more personalized between teacher and student(s) in Whole Language classrooms. In comparison, Skills/Eclectic teachers' conversations were perceived as conveying predetermined information, intended as much for the rest of the class, as for the individual student being addressed.

9. An unresolved series of questions for the researcher, particularly at an upper elementary level, concern themselves with what does it mean to have a particular theoretical orientation to reading? For example:

a) Are Skills/Eclectic and Whole Language orientations not different?

b) Are those orientations different, but not independent of each other?

c) Are teachers not reflecting their particular orientations consistently under classroom conditions?

IMPLICATIONS FOR INSTRUCTION

Implications Specific to the Study:

The following implications for teaching may be drawn from the conclusions of the study.

1. Limited comprehension instruction was observed in the questioning performances of teachers perceived by immediate administrators and/or consultants as competent exponents of the two theoretical orientations to reading under study. This suggests that a problem exists, the amelioration of which is the responsibility of many agencies and/or individuals.

2. The conclusions of this study suggest that upper elementary teachers in general equate assessment of what has been read by students as comprehension instruction. From this may be inferred that these teachers believe that comprehension is something that can only be assessed as an end-product; that it is unteachable; that only the native intelligence and experience of individual students can aid them in comprehending the written materials they encounter; that the effective teacher is one who "manages" frequent exposures to reading materials with high levels of time on task.

Recent research evidence indicates that comprehension can be taught directly. It further indicates that comprehension is something that happens when readers read and that comprehension instruction should focus students' attention explicitly on that fact. This radically different approach focusses on students using their own mental processes as they interact with text, rather than on the assessment of content learning so prevalent within the study. Research indicates that teachers should not only thoroughly explain but also model (think aloud and demonstrate) such aspects as the identity of reading tasks or questions, how to locate and select information, how to select reading strategies, and the thinking processes needed for task completion. Students should also have the opportunity to verbalize in their own

words what they have learned from direct, explicit teacher instruction and modeling. This provides an opportunity to identify and clarify discrepancies between what the teacher intended to be learned and what was actually internalized by students.

3. Teachers in this study frequently used schema related questions. Schema theory reiterates the long standing exhortation of reading methodology courses that teachers motivate their students and build interest and experience before having them read. The time spent building and activating relevant concepts in preparation for reading appears critical since a major tenet of schema theory is that comprehension is as dependent on what is in a reader's head as it is on what is printed.

4. Recent research findings concerning teachers' questioning together with associated guidelines for instruction, are described in detail in Chapter 2 (p. 26) of this study. In brief, however, they recommend questions requiring students to invoke prior knowledge, read for a purpose, engage in predictions and inferencing, and synthesize completed passages (retelling, summarizing, dramatizing). A final recommendation is that questions should exhibit a line of progression eliciting only those details that are essential to the "flow" of a story.

5. Obviously, teachers, consultants and text publishers are not conspiring to deny comprehension instruction to students. However, the study strongly indicates that reading comprehension as a process has not yet been reflected in classroom instructional practices. One pessimistic position maintains that it could never be, since teachers teach the way they were taught. This contention ignores the dissatisfaction with present instructional practices as embodied in the small

but growing phenomena of teacher "support groups". The fact that such groups exist may also reflect a disillusionment with traditional forms of learning that are other, rather than self-directed. Certainly, the majority of the study's subjects reported the contributions of colleagues and various forms of in-servicing as important sources of ideas about reading, and negated their past experiences with formal course work. Dissatisfaction with the latter appears to have resulted both from its superficiality (reading having to compete with so many other areas of the elementary curriculum) and from an emphasis in the past on comprehension as product. Meanwhile, the present situation of practice lagging behind theory, has to be resolved.

Implications from the Larger Context of the Study:

Although the following implications are not directly based on study findings, they do arise from the larger context of the study (comprehension instruction) which has been, and is much discussed in the literature. Consequently, they stem from both the related research and literature.

1. Schema theory indicates that vocabulary development is more than simply introducing words, looking up definitions in the dictionary, and using the words in sentences. Instead, it suggests that vocabulary instruction should attempt to facilitate students' "ownership" of words. This begins by eliciting from students what it is they already know that is similar to the new word/concept being taught. An anchor point is thereby provided for discussing how the new word is like, and how it is different from, other word/concepts already known to the students. This form of vocabulary instruction, although

time consuming, increases the likelihood of students being able to understand text not under the immediate guidance of the teacher.

2. The researcher contends that there is likely to be a high correlation between the time spent teaching elementary students how to understand and the time spent teaching reading teachers how to help students understand the process of reading. Pre-service and in-service education programs can promote the development of professional teachers, but only if they focus on developing a strong, clear theoretical base to guide teaching practices.

In-service programs have the potential to change the teaching practices of the greatest number of teachers in the shortest period of time. To be successful, they have to build on the fact that teachers are already classroom participants and probably know more about children and reading than they think they do. Although one-shot workshops have been the normative method of delivering in-service education, research indicates this is the least effective means of influencing teacher thinking behavior. From his major review of research in this area, Lawrence (1974) concluded that school-based programs, in which teachers helped one another and planned activities, tended to be more successful than programs conducted by outsiders. In addition, the more successful programs placed teachers in active rather than receptive roles, and emphasized demonstrations, supervised trials and feedback. Furthermore, those programs in which teachers worked collaboratively, were more effective than those in which they worked alone. The researcher suggests, therefore, that long term, frequent, school-based, teacher-active in-service of this type is an efficient vehicle for effecting the extensive instructional changes indicated by this and previous studies.

3. Provision of supportive school context and administrative support appear vital to the success of staff development efforts. In particular, Loucks and Zacchei (1983) see it as requiring the kind of principal who says, "We're going to do this together, and we're going to get all the help we need" (p. 30). These authors listed examples of supportive administrative activities, such as stating publicly that the proposed change is a priority, easing up on requirements in other areas, and allocating resources to procure necessary materials.

4. Unfortunately, changing teachers from distributors of materials to dispensers of instruction, is exacerbated if they perceive the goals and expectations of their school boards to be in contradiction with those that research is encouraging them to perform. One of the lessons from "looking into classrooms" research is that if the school district or department of education wants a decoding outcome in instruction, then teachers have great difficulty emphasizing another, regardless of their personal beliefs. Hence the first step appears to lie with the department of education or school board. They must state, and thereafter, clearly communicate the outcomes they want after consultation with those most familiar with recent research findings. Hopefully, the desired outcomes will encompass a broader view of what constitutes reading and an intention to emphasize assessment of these new areas to the same degree that skills presently receive.

5. The present concern of educators, is for teachers to acquire sufficient theoretical grounding to engage in substantive instructional decision-making and to be independent of the materials they use. However, some researchers are questioning whether it is possible to create enough "master teachers" to expedite the changes perceived

necessary in reading instruction. Others question whether the demands of constant instructional decision-making can be sustained within the contextual pressures and realities of day-to-day teaching. This line of reasoning suggests that "master teachers" may be more usefully employed as "master developers", translating research findings on comprehension and text processing into scripts which teachers can follow explicitly, thereby helping to create uniformly competent classroom instruction. However, these issues have yet to be empirically clarified and, therefore, should not delay the courses of action suggested earlier by the researcher. Even if these issues had been clarified, the researcher would still advocate the same approaches to change since the ones he has suggested credit individual teachers with the courage and capacity to assume responsibility for their own learning and instructional decision-making.

RECOMMENDATIONS FOR RESEARCH

In order to expand or refine the present study, the following avenues of research are recommended:

1. Two subjects in the study conveyed a strong sense of personal efficacy to the researcher. Efficacy refers to an individual's perception of his/her ability to be successful and the level of effort and persistence exhibited as a result. These subjects were the only ones to have given workshops and public presentations describing their approaches to instruction. They also recorded the two strongest theoretical orientation to reading profiles on the THOR questionnaire. The researcher, therefore, recommends that the relationships between teacher efficacy, ability to verbalize personal beliefs about reading,

and strength and direction of theoretical orientation to reading (PRI, TORP, THOR), be investigated.

2. The study provided little evidence of a strong relationship between upper elementary teachers' underlying beliefs about reading and their classroom questioning behaviors. However, this may reflect the complexities and constraints of the classroom situation. Therefore, the researcher suggests a replication of the study, adding the opportunity for teachers to carry out comprehension instruction with a single average ability student, in a situation external to the classroom. A further dimension to explore under 1 to 1 instruction would be to investigate whether students of widely different reading abilities would influence the theoretical orientation/questioning relationship.

3. Present pre-service training of teachers will presumably provide them with a strong, clear theoretical framework and the opportunities to apply that reading theory to classroom instruction. This raises several avenues of investigation. For example:

a) What are the characteristics of students who appear to develop a strong theoretical orientation to reading?

b) Do students with a strong theoretical base demonstrate the ability to analyze, discuss and redesign sample lessons in the light of studied theoretical principles?

c) Can the same students demonstrate a similar capacity under classroom conditions?

d) What are the effects of a "mismatch" between the theoretical orientations of practicum students and cooperating teachers?

e) Can students trained in substantive instructional decision-making sustain their performance for their first year's

teaching? If so, what factors were instrumental in doing this? If not, for how long could the performance be maintained and what were the specific instructional constraints that made it difficult to continue?

4. The major focus of the study was to examine teachers' questioning. Although other teaching behaviors were reported, these were largely the personal impressions of the researcher, based on limited observations. It is, therefore, recommended that teaching behaviors other than questioning, be explored in future studies at this upper elementary level. This may include timing and type of feedback, use of instructional materials, and reasons for instructional decision-making. Consideration should also be given to the use of focused interviews as part of the sample selection procedures, and taking a longer in-depth look at a single exponent of each theoretical orientation.

5. Interruptions originating external to the classroom were frequent in the study and were perceived to affect sequential, cumulative forms of teacher instruction. To the researcher's knowledge, the effects of this apparent lack of consideration for uninterrupted instructional time, have not been investigated.

6. The phenomena of voluntarily attended teacher "support groups" suggests several areas of investigation. They include the following:

a) What are the major reasons of teachers for instigating and participating in such groups? Do they arise out of dissatisfaction with preservice and/or inservice professional training or are they perceived as complementary to these traditional approaches? Are there professional and personal benefits unique to "support groups"?

b) What are the personal charateristics of participants who appear to believe they can learn best by exposing their instructional inadequacies to critical forms of discussion with colleagues?

c) Are "support groups" self-serving or do they feel an obligation to share new insights with non-members?

d) Do school district administrations encourage such groups? If so, in what manner is this done without affecting group self-autonomy?

CONCLUSION

Limited comprehension instruction was evident in the questioning performances of either Skills/Eclectic or Whole Language teachers at a grade 5 level. Instead, the major emphasis was on comprehension assessment. Comprehension instruction questions for both groups emphasized the functions of schema development and focusing, and the use of students' background knowledge as a data source for question-answer relationships. Vocabulary development received minimal attention. Subjects generally received similar professional training but did not regard this as important as colleagues and different forms of in-servicing for ideas about reading.

Whole Language instruction appeared different to that of Skills/Eclectic subjects in that it placed more emphasis on clarifying students' schema misconceptions and inconsistencies in reasoning, relating students prior knowledge and comprehension difficulties directly to text, using context to assist oral reading miscues,

providing opportunities for creative writing during reading comprehension instruction, and on choosing less didactic reading materials from prescribed lists. Data also suggested that Skills/Eclectic subjects were not as self-confident or as professionally involved in improving their instructional practices as Whole Language subjects.

In conclusion, this study has attempted to highlight some of the similarities and differences between two theoretical orientations towards reading. Its purpose has been not to evaluate one approach over another but to provide data for those theoretically based, open-minded individuals attempting to build bridges between the new and the known. In this vein, the study will conclude the way it began, that is, with a quote from Pearson (1985):

> There is a common thread that unites the most naive experimentalist and the most zealous ethnographer with all the rest of us in between, who are mumbling under our breaths when the debate is roaring, "And all I want to do is to find out how to help a few kids learn to read a little better." (p. 261)

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APPENDICES

APPENDIX A

THEORETICAL ORIENTATION TO READING (THOR)

QUESTIONNAIRE

THEORETICAL ORIENTATION TO READING (THOR)*

Name:_____ School:_____ Date:_____

Directions: Read the following statements, and circle one of the responses that will indicate the relationship of the statement to your feelings about reading and reading instruction. Select the one best answer that reflects the strength of agreement or disagreement on a continuum from SA (Strongly Agree) through to SD (Strongly Disagree) i.e.

SA 1 2 3 4 5 6 SD 7

---

1. The use of a dictionary is necessary in knowing the meaning and pronunciation of new words in context.	SA 1	2	3	4	5	6	SD 7
2. When coming to a word that is unknown, the reader should be encouraged to guess based on meaning and go on.	SA 1	2	3	4	5	6	SD 7
3. If every word is accurately decoded the story will be understood.	SA 1	2	3	4	5	6	SD 7
4. An important criteria for determining students' success in reading is their performance on a commercially prepared "end of unit" test.	SA 1	2	3	4	5	6	SD 7
5. It is not necessary for a student to know the letters of the alphabet in order to learn to read.	SA 1	2	3	4	5	6	SD 7
6. It is important to teach skills in sequence with other skills.	SA 1	2	3	4	5	6	SD 7
7. Flashcard drill with sightwords is an unnecessary form of practice in reading instruction.	SA 1	2	3	4	5	6	SD 7
8. Young readers should not be introduced to the inflected forms of words (e.g. running, longest) before they are able to read their root forms (e.g. run, long).	SA 1	2	3	4	5	6	SD 7
9. At the beginning stages of reading the instructional focus should be on decoding skills rather than comprehension.	SA 1	2	3	4	5	6	SD 7

*Adapted from TORP (Deford, 1978) and PRI (Duffy, 1978)

10. Contextual clues are the most important word recognition aids and should receive more instructional emphasis than sight words or phonics.	SA 1	2	3	4	5	6	SD 7
11. Students should be systematically taught to use phonic skills.	SA 1	2	3	4	5	6	SD 7
12. Reading is a difficult process which must be taught in a step-by-step sequence if teachers are to develop good readers.	SA 1	2	3	4	5	6	SD 7
13. It is not necessary for students to know new words before they appear in the reading text.	SA 1	2	3	4	5	6	SD 7
14. Reversals (e.g. saying "saw" for "was") are significant problems in the teaching of reading.	SA 1	2	3	4	5	6	SD 7
15. When students do not know a word, they should first be instructed to sound out its parts.	SA 1	2	3	4	5	6	SD 7
16. It is important for a word to be drilled a number of times after it has been introduced to ensure that it will become a part of sight vocabulary.	SA 1	2	3	4	5	6	SD 7
17. Materials for early reading should be written using natural language rather than controlled vocabulary and grammatically simple sentences.	SA 1	2	3	4	5	6	SD 7
18. Considerable instructional time should be devoted to conducting guided reading lessons using selections found in basal textbooks.	SA 1	2	3	4	5	6	SD 7
19. An important criteria for grouping students is the basal textbook level each is able to read.	SA 1	2	3	4	5	6	SD 7
20. If a student says "barn" for the written word "stable" in a sentence, the response should be left uncorrected.	SA 1	2	3	4	5	6	SD 7

APPENDIX B

LETTER TO PROSPECTIVE SUBJECTS CONCERNING

THEORETICAL ORIENTATION TO READING (THOR) QUESTIONNAIRE

Room 441, Education South,
Department of Elementary Education,
University of Alberta,
Edmonton, Alberta.
T6G 2G5

(Phone: 432-5123)

February, 1985.

Dear

Thank you for agreeing so readily to be a part of the proposed research concerning reading comprehension instruction, outlined to you on the 'phone today.

The final step in identifying credible exponents for the study is your completion of the attached Theoretical Orientation to Reading (THOR) instrument. I appreciate the frustrations you are likely to feel in completing this questionnaire. However, the instrument is a validated attempt to obtain a relatively objective indication of the direction and strength of your theoretical beliefs about reading. As you complete it, please try to leave grade levels aside, and answer from generalised personal beliefs concerning reading and reading instruction instead. Your responses will be treated with the strictest confidence and will only be known to myself and my advisor, Dr. W.T. Fagan.

As mentioned, I anticipate that final approval for this research from the _____ Board will take a further two weeks. Once this is received I will be contacting you again (say the first complete week in March) to arrange a convenient time for the three audio taping sessions.

Once again, my appreciation for going beyond the rigours of day-to-day teaching to be part of this study.

Yours sincerely,

(Mr.) Robin H. Morris, M.Ed.

Enc.1

APPENDIX C

TEACHER'S PROFESSIONAL DATA FORM

TEACHER'S PROFESSIONAL DATA

For research purposes only, please provide the following information:

I. Teaching Experience:

1. Total number of years teaching experience _____ years.
2. Total number of years teaching experience for each grade level:

K _____	Gr.4 _____	Rdg. Spec. _____	Other _____
Gr.1 _____	Gr.5 _____	Res. Tchr. _____	
Gr.2 _____	Gr.6 _____	Spec. Ed. _____	
Gr.3 _____	Gr.7 & above _____	Libr. _____	

II. Educational Background:- GENERAL. Please indicate:

1. Initial Teacher Training:
   a) Where?
   b) How long?
   c) Degree(s)/Diploma(s) before entering profession? _____ Yes _____ No

      If Yes, what type? _____

2. Subsequent Teacher Training, if any?
   a) Full time (Where?) (How long?) _____
   b) Part time (Where?) _____
   c) Subsequent Degree(s)/Diploma(s) obtained? _____ Yes _____ No

      If Yes, what type? _____

III. Educational Background:- READING. Please indicate:

1. The approximate title(s) of formal reading courses taken at an undergraduate level AND the institution(s) where taken:

	COURSE TITLE	INSTITUTION
a)		
b)		
c)		
d)		

2. The approximate titles of formal reading courses taken at a graduate level and the institution(s) where taken:

	COURSE TITLE	INSTITUTION
a)		
b)		
c)		
d)		

3. What formal course work has influenced your teaching of reading the most?

4. What are the major sources of your ideas about how to teach reading? (e.g. workshops, professional journals and/or texts, colleagues, teachers' guidebooks, professional organizations etc.) Please be as specific as possible: